

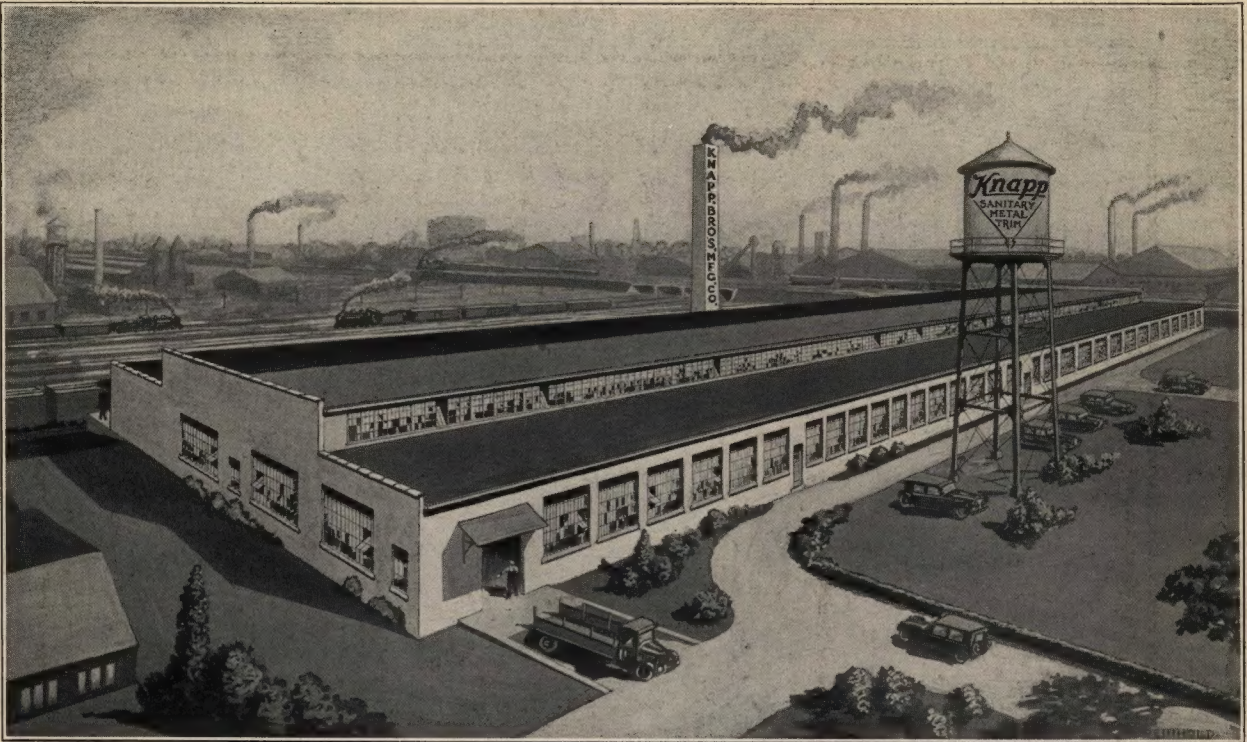
ARCHITECTS
HAND BOOK
ON METAL TRIM



1929

Represented by
Gally Building Specialties Co.
1941-43 Walnut Street
Phone Seeley 2473
CHICAGO ILLINOIS

KNAPP BROS. MANUFACTURING CO.
CHICAGO



The New, One-Story Daylight Plant of the
KNAPP BROTHERS MANUFACTURING CO.
Joliet, Illinois



PHOTOGRAPH OF FACTORY INTERIOR

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INTRODUCTORY

Knapp Brothers Manufacturing Company and Its Products

Knapp Brothers Manufacturing Company was incorporated in 1905 and reaches, with the year 1929, its twenty-fourth anniversary of continuous operation. This Company is the pioneer and originator of the plastered-in flush and cove principle of metal trim, which has been recognized as standard for hospitals, schools, public buildings, and institutional buildings where sanitation, cleanliness, and ease of upkeep is essential and indispensable. In addition to the line of *Sanitary Metal Trim* the Company produces a large line of *Metal Corner Beads* for the protection of plastered corners, a line of low cost *Architectural Metal Trim* for residences, apartments, hotels and public buildings, and other metal building specialties of a diversified nature.

Manufacturing Facilities

The Company has just completed a new manufacturing plant at Joliet, Illinois, which is an industrial suburb of Chicago, located thirty-eight miles from that city. Because of its proximity both to Chicago and to the steel center, the very best of shipping facilities are offered. The plant and equipment are modern in every respect, affording the maximum of efficiency in production.

Executive and General Sales Offices

The executive and general sales offices of the Company are located in Chicago, the new address being 605 W. Washington Blvd. All communications of every nature should be directed to this address.

Contents of this Handbook

This handbook has been compiled to give service to the architect, engineer, owner, and builder. The products of the Company are classified according to their function and the method of presentation is to give, first, the essential information concerning them, and second, to follow this by detailed drawings of the various products and to show practical structural drawings of their application and actual photographic illustrations of installations. The information given is not in specification form but it contains all of the essential data necessary, from which the specification writer can extract what he considers essential for his purpose.

Changes and Developments

The information in this handbook is as accurate and up-to-date as careful compilation can make it both as to drawings and text.

It is, however, the Company's policy to make such changes in their products from time to time as may be necessary to improvement and development. It is their aim to furnish the latest improvement in any article and for this reason slight modifications may be made at intervals from the design or detail shown herein.

Engineering Services

The Company maintains a technical department whose business it is to assist architects, engineers or builders in any problems arising from the adaptation of their products to practical conditions. Special attention to these matters will be given upon request without obligation or charge.

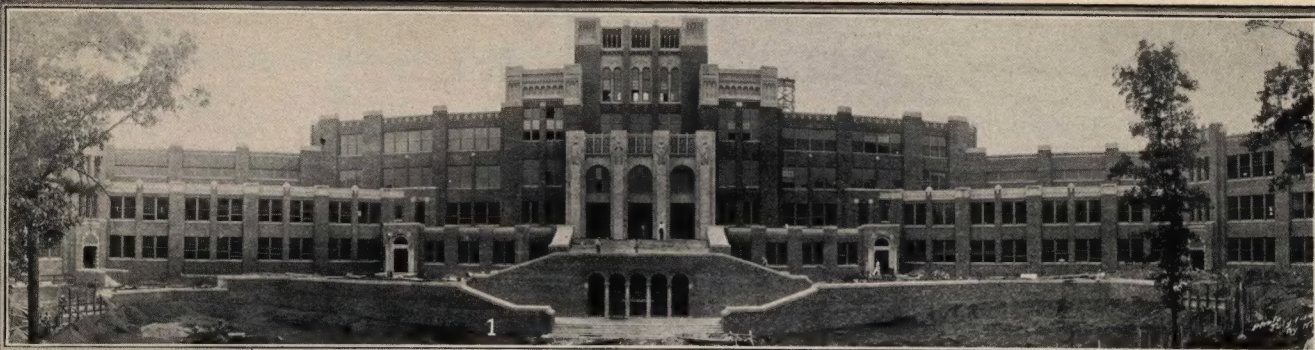
Patents

Most of the Knapp line is covered by patents owned or controlled by the Company, but these patents are used only for the protection of the concern and not for revenue. Purchasers of Knapp Products do not pay any more because of patents or patented features.

Sales Connections

The Company maintains selling agencies or connections in most of the principal centers of the United States and Canada. Prompt attention will be given to all inquiries for information or orders either through these agencies or direct.

4—REPRESENTATIVE BUILDINGS USING KNAPP METAL TRIM



1. High School—Little Rock, Ark. Archt. Gordon Walker—Little Rock.

Knapp Chalk Trough and Bull Nose Bead.

2. City Hall—St. Joseph, Mo. Archt. Eckel & Aldrich—St. Joseph.

Knapp Window Stool.

3. Woodville County Home—Pittsburgh, Pa. Archt. Frank McC. Crooks—Pittsburgh.

Knapp Base—Window Trim—Casing—Bull Nose Bead—Base Ground—Corner Bead.

4. St. Joseph's Hospital—Hot Springs, Ark. Archt. Henry P. Hess—St. Louis, Mo.

Knapp Window Trim—Casing—Bull Nose Bead—Picture Mould—Base Grounds—Mould.



5. Starling-Loving Hospital—Columbus, O. Archt. Joseph N. Bradford—Columbus, O.

Knapp Window Trim—Door Casing—Bull Nose Bead.

6. New Hall of Justice—Los Angeles, Calif. Archt. Los Angeles County.

Knapp Window Trim.

7. Corlette Residence—Battle Creek, Mich. Archt. A. B. Chanel—Battle Creek, Mich.

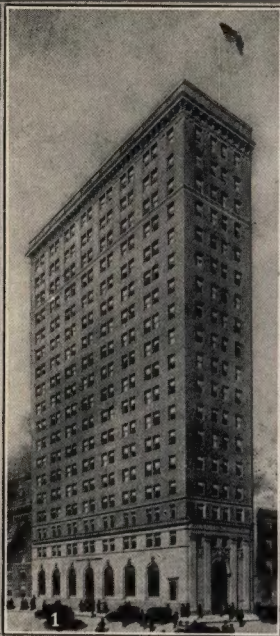
Knapp Base—Casing—Stool—Bull Nose Bead—Small Nose Corner Bead.

8. Nurses' Home—Mercy Hospital—Pittsburgh, Pa. Archt. Edward Stotz—Pittsburgh, Pa.

Knapp Window Trim—Bull Nose and Small Nose Corner Bead.



REPRESENTATIVE BUILDINGS USING KNAPP METAL TRIM—5



1. Mutual Trust Building—
Philadelphia, Pa.
Architects
Heacock & Hokanson,
Philadelphia, Pa.
Associate Architects
The Ballinger Co.
Knapp Metal Base



2. Elks Building—Brooklyn, N. Y. Architects—McKim, Mead
and White, N. Y. City.
Metal Base. Bull Nose Beads and Base Grounds.



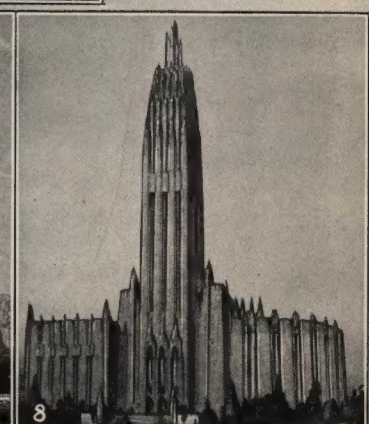
3. Colonial National Bank Bldg.—
Roanoke, Virginia
Architects
Frye & Stone,
Roanoke, Virginia
Metal Base and Window Stool.

4. Stratford Apartment
Building—Chicago
Architects
Hooper & Janusch
Chicago
Metal Window Stool and
No. 210 Base



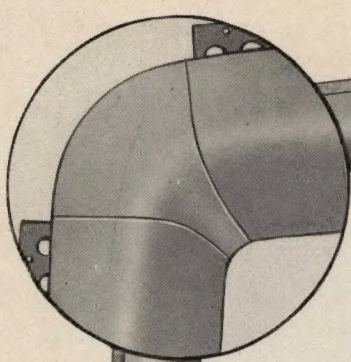
5. City Hall, Los Angeles,
Calif.
Associated Architects
John C. Austin
John Parkinson
Albert C. Martin
Los Angeles
Metal Window Stool, Bull
Nose Bead and Casing

6. Indian Refining Filling
Station—Dayton, Ohio
Metal Window Stool
and Base



8. Boston M. E. Church—
Tulsa, Oklahoma
Architects
Rush, Endicott & Rush,
Tulsa, Oklahoma
Metal Base, Casing and
Casing Mould

7. Battle Creek Sanitarium—Battle Creek, Mich. Architect—M. J.
Morehouse, Chicago. Metal Window Stool, Special Base, Carpet
Strip Anchors, Picture Moulds, Bull Nose Bead, Corner Bead.



The Knapp No. 302 Metal Sanitary Window Trim

A complete and vermin-proof trim for the inside of window openings. It may be assembled at the factory or shipped knocked-down and assembled at the job as a complete unit.

Corners are coved to make cleaning easy.

Average time of erection is 15 to 20 minutes per frame, which makes the cost less than any other method.

When the plaster is dry, the walls are ready for decoration, because the metal trim is already in place. No shrinking, swelling or warping due to climatic conditions.

Hundreds of successful installations and satisfied users.



Section I

UNIT METAL WINDOW TRIM AND METAL STOOLS

Essential Information and Specification Data

FUNCTION AND MERIT

THE unit type metal *Sanitary Window Trim* is a complete trim for the inside of a window opening comprising head, jamb and stool pieces with cove dust-proof intersecting corners. The flush principle gives a very desirable, clean-cut and neat appearance to window openings. It gives the necessary protection to rounded jambs on the windows. This trim is always made up to order to fit each opening (measurements taken at the building by the contractor). It is shipped in one complete frame ready to set in place or shipped knocked-down and assembled at the building. It can be used with any kind of standard window frame or casement.

This method of window trim is economical, practical, sanitary and easy to keep clean and maintain. It can be used in any type of building effectively.

RECOMMENDATIONS

The unit type frame is recommended completely assembled at the shop shipped ready to set in place. The complete shop-made unit is always a much better piece of workmanship than when assembled in the field and the cost of labor for erection is considerably less, which makes the total erected cost actually less. The only case where knocked-down units are advisable and necessary is where window openings exceed 8 ft. in one dimension and 12 ft. in the other dimension.

COMBINATION DESIGNS

The unit metal window trim may be made up of various sections. (See profile details on following pages.) The Style 302 is most frequently used for stool, jambs and heads. However, where a flat stool is desired, a combination, using Style 302 for the head and jambs and either Style 304, 307 or 308 is used for the stool. The No. 305 splay type is recommended especially to prevent objects being placed on the window stool.

SPECIFICATION DATA

SCHEDULE

A schedule showing the windows which are to be trimmed is very helpful and desirable. The

illustrations in this handbook can be used as a guide to the detailer.

INSIDE REVEAL DEPTH

It is quite essential that the architect or engineer establish the depth of the inside reveal from face of plaster to the window frame. The cost of the trim varies not only with the size of the frame but also with the varying reveal depth, and this information is essential when estimating. Keeping inside reveals to a uniform dimension makes for economy. Scale or full size sections of reveal depths should be shown or detailed on plans in connection with window trim.

KIND AND GAUGE OF METAL (U. S. STANDARD)

The metal used is always extra tight coat (hot process) galvanized. Jamb and head pieces need be no heavier than 20 gauge where the reveal is 4 inches or less in depth. Where the reveal is greater than 4 inches, 18 gauge is recommended.

In the case of stools, we recommend 18 gauge where the reveal is 4 inches or less and the width of the window not to exceed 5 ft. Where the reveal is greater than 4 inches or the length exceeds 5 ft., stools should always be 16, 14 or 12 gauge. In office buildings and public buildings

particularly nothing lighter than 16 gauge for stools is recommended. Specifications should be explicit in this matter of gauge.

GROUTING UNDER STOOLS

When stools are being set in place, spot grouting with mortar is usually desirable. The erector places the grout hills about 3 inches apart and sets the stool therein. Grout is not necessary in gauges heavier than 16 nor when solid wooden blocking is placed under stools.

METAL MULLION COVERS AND STOPS

Metal Mullion Covers, Stops, etc., herein illustrated, are made of 20 gauge metal. See page 28 for details. These are shipped cut to exact sizes except the Stop, which is cut and mitered on the job.

FINISH

Metal Window Trim is delivered coated on the exposed surfaces with *Knapp Special Primer*. This has been perfected after years of experience. It adheres tenaciously to the galvanized surface, dries hard, is uniformly applied by compressed air and will not peel off. This primer forms the basis for any subsequent decoration desired.

GROUNDINGS

The groundings and blocking necessary for metal trim should be furnished and set by the carpenter. See details for location.

FITTINGS

The sanitary cove fittings fully illustrated hereafter, which form the corners between the trim members, are made of the best grades of grey cast iron, sand blasted and machined. Corner fittings of stamped steel are also made for the Style 302 trim, having the 1½ inch radius nose (but not for the ¾ inch radius nose). The stamped steel fittings are equally as serviceable as the cast iron and about 25 per cent less expensive but cannot be furnished for the smaller radius of ¾ inch at the present time.

Corner fittings are always attached to the trim members at the factory. The cast iron fittings are attached by cold riveting, the rivet heads being countersunk and soldered over so as to be invisible.

The sheet metal fittings are electrically spot welded to trim members.

In the case of splay stools Style 305, special attention is called to the fact that the angle and depth of the splay part of the corner fittings is fixed and cannot vary except a special pattern be made for each condition.

Where metal stools are used with plastered jambs, jamb finish strips are recommended and should be specified as illustrated by the detail on page 24.

Specifications of details should call for the fittings desired. See pages 21-22-23 for handbook numbers of these fittings.

METAL LATH FLANGE

On page 27 is illustrated the type No. 302 trim with a 6-inch strip of metal lath welded to the flange. This strip is desirable where masonry walls are rough and uneven or where the wood blocking is not otherwise covered for plaster key. It is not a standard part of the construction and must be specified if desired.

ERECTION

Stools (with the exception of Style 306) and unit frames are erected before plastering. Style 306 is erected after plastering.

Where unit frames are assembled at the shop, the field erection is very simple. The frames being all made to proper size, the erector simply puts them in place, plumbs them and nails them to the grounds. Where the frames are shipped knocked-down, the erector is required to put the four pieces (head, jambs, and stool) together with bolts. He then puts the assembled frame in place, plumbs and nails as above, but the heads of the field bolts should be soldered over and filed down smooth to make a presentable appearance. The cost of this work in the field is actually higher and less desirable than shop assembly despite the apparent slightly higher first cost to the contractor.

The average time consumed in erecting a unit shop assembled frame is between 15 and 20 minutes, leaving the opening completely trimmed ready for plaster and finish decoration.

Where frames are so large that they cannot be shipped in one piece, field assembly is necessary and splice plates (see page 21) are used where the two parts are joined. Where a window opening exceeds 8 ft. in one dimension and 12 ft. in the other dimension it should be shipped knocked-down.

Specifications should ask that exact dimensions be supplied manufacturers (see pages 29-30 for dimensions required) and that frames or stools be erected, leveled and plumbed and with due regard for the plaster thickness wanted. Schedule forms are furnished which greatly assist the contractor in taking measurements. Complete assembly schedules for use on the job are also furnished. All trim comes crated, each crate marked and conforming to the schedule. Every effort is made to have the erection simple and easily understandable.



MERRIMAC TELEPHONE
EXCHANGE
CHICAGO, ILLINOIS

Architects: Holabird and Roche,
Chicago, Illinois

No. 302 Unit Type Flush-
with-plaster window trim
throughout.

(Below)

NEW HALL OF JUSTICE BLDG.
LOS ANGELES, CALIF.

Architects: Associated Architects,
Los Angeles

No. 302 Unit Type Flush-
with-plaster window trim for
over 1000 windows in this
building.





WOODVILLE COUNTY HOME—PITTSBURGH, PENNA.

Architect: Frank McCandles Crooks—Pittsburgh, Penna. No. 302 Unit Type "Flush-with-plaster" curved head Window Trim.

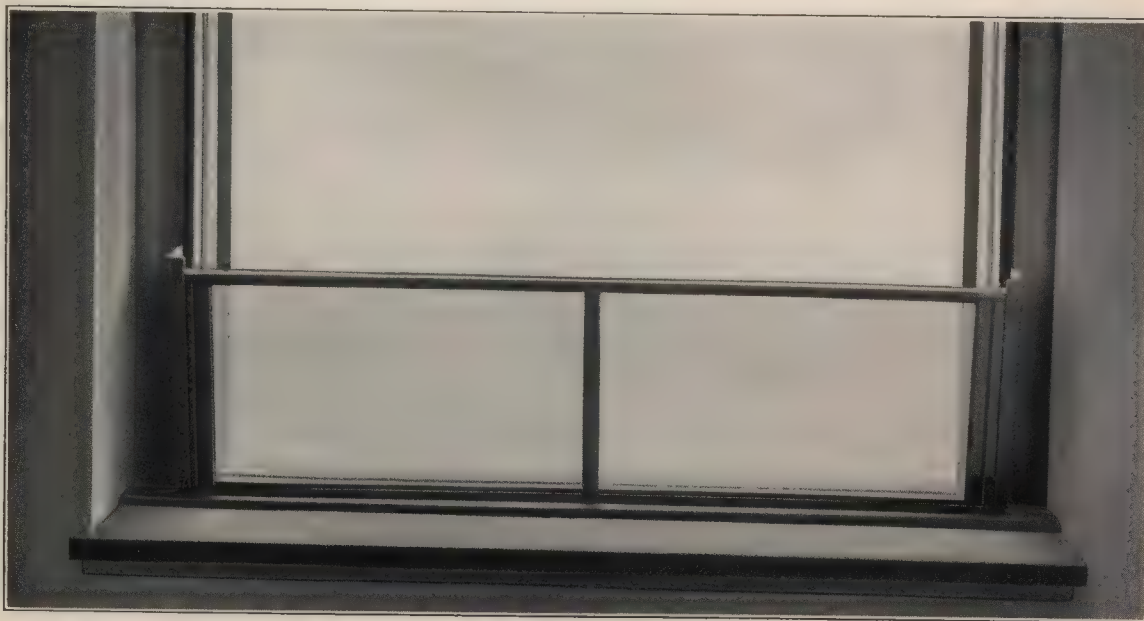


CONTAGIOUS HOSPITAL—ST. PAUL, MINN.

Architects: Buechner and Orth, St. Paul, Minn. No. 302 Unit Type "Flush-with-plaster" Window Trim.



SHOWING APPLICATION AND ADAPTABILITY OF No. 304 WINDOW STOOL WITH TILE WAINSCOT



COLONIAL NATIONAL BANK BUILDING, ROANOKE, VA.
Architects: Frye and Stone, Roanoke, Va. No. 304 Window Stool used throughout.



HOLLAND HOSPITAL,
HOLLAND, MICH.

Architects: Pond, Pond, Martin
and Lloyd, Chicago.

Bull Nose Bead on Jambs and
Head.

No. 304 Window Stool.

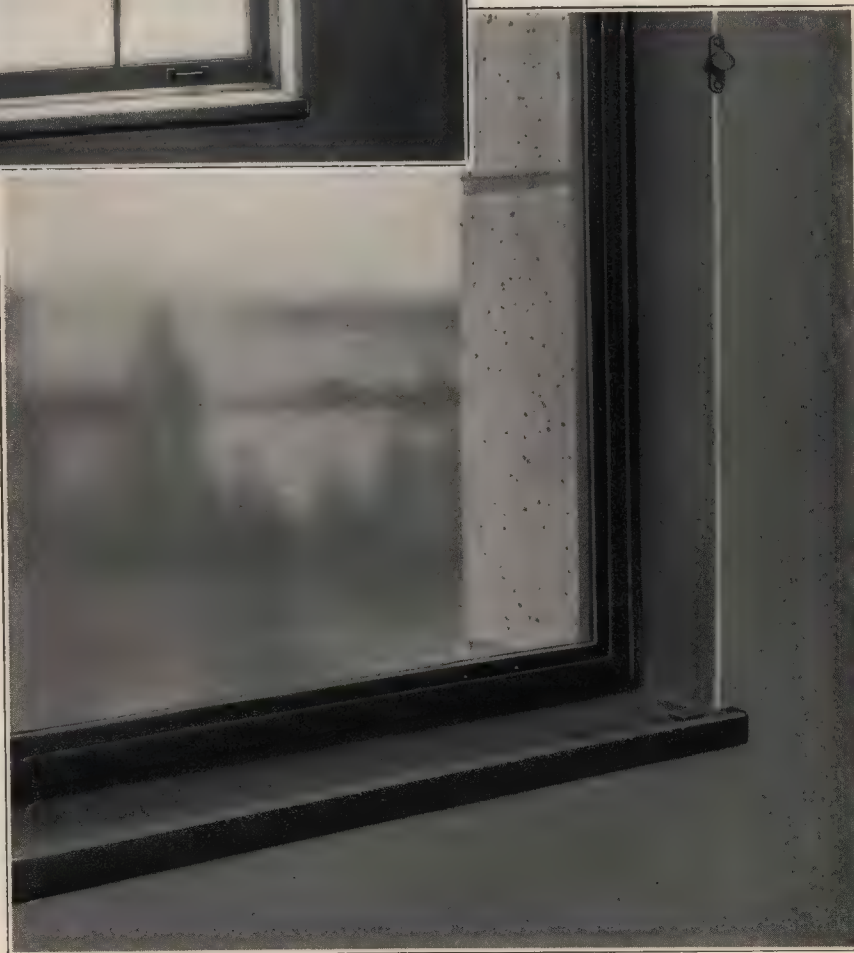
(Right)

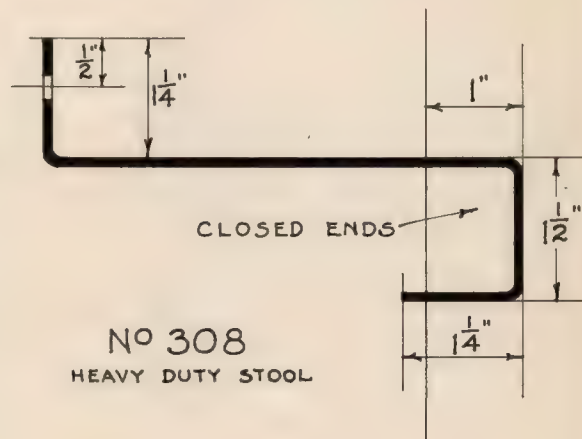
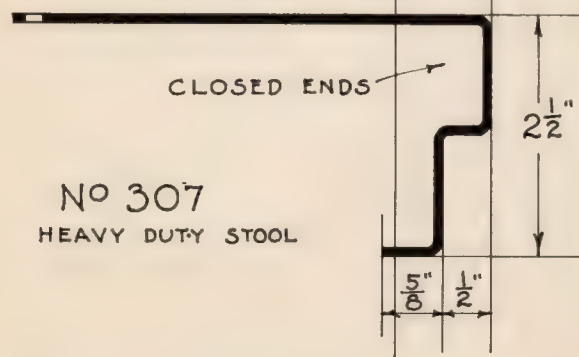
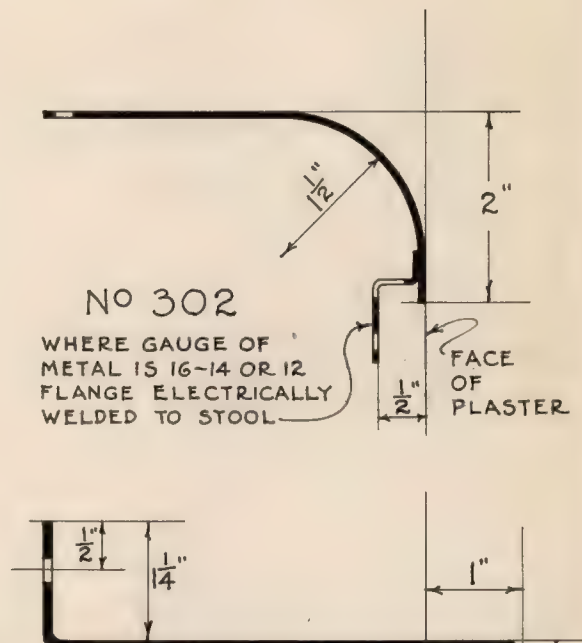
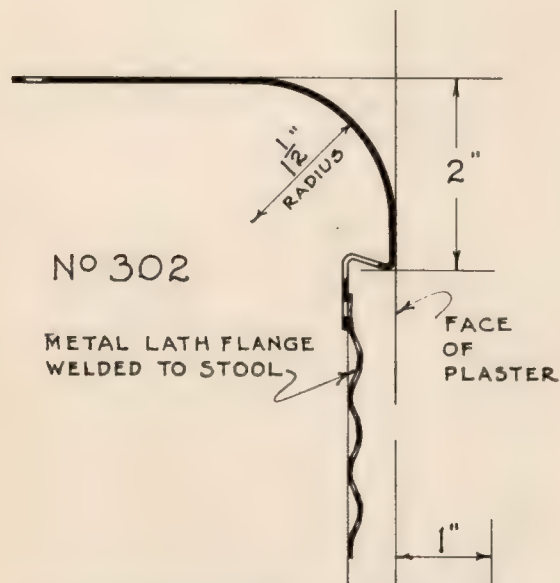
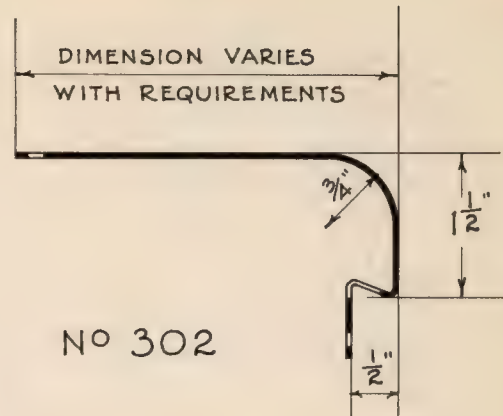
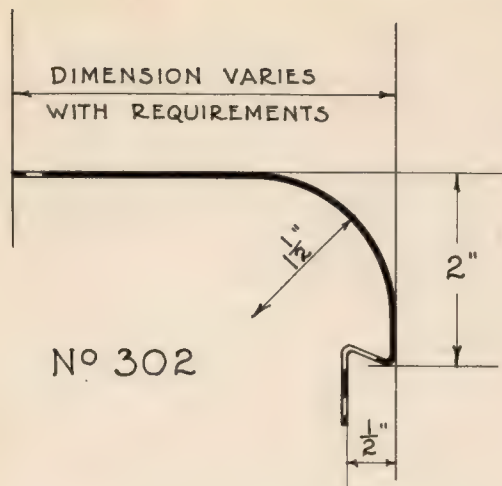
CITY HALL
LOS ANGELES

Associated Architects:

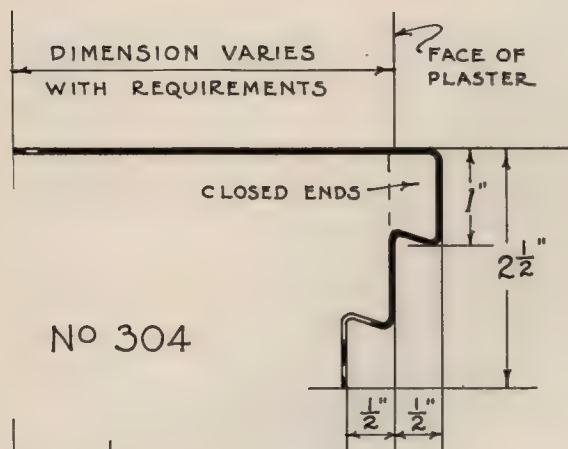
John C. Austin
John Parkinson
Albert C. Martin
Los Angeles

No. 304 Window Stool
throughout

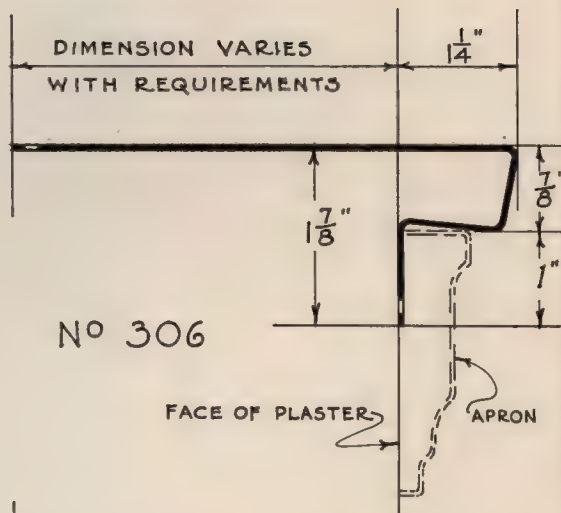




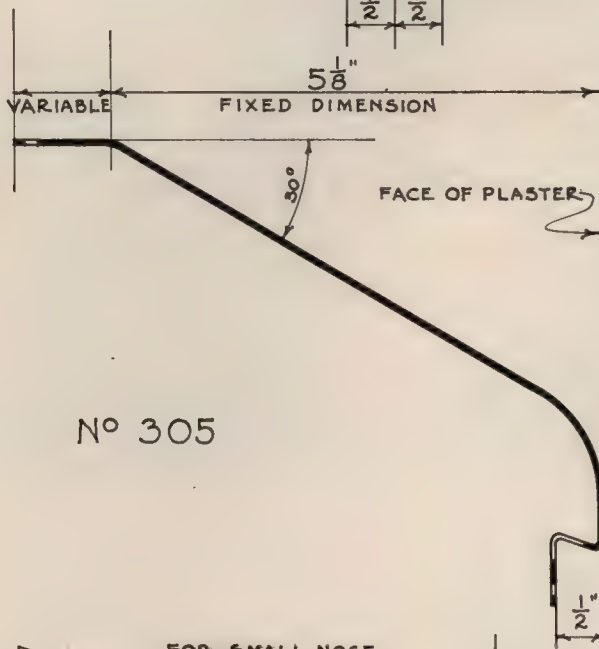
HALF FULL SIZE PROFILES OF
 KNAPP STANDARD METAL WINDOW STOOLS
 FOR FURTHER DETAILS CONSULT FOLLOWING PAGES



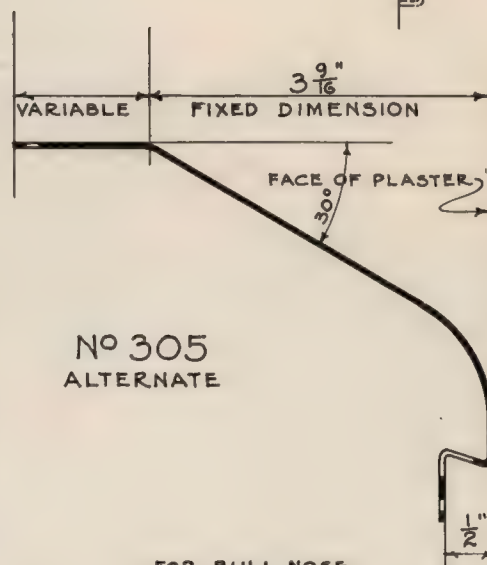
No 304



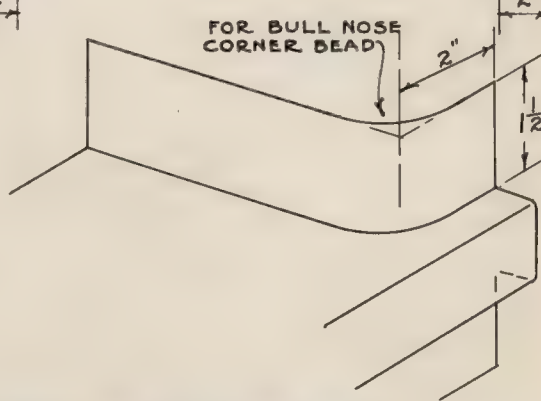
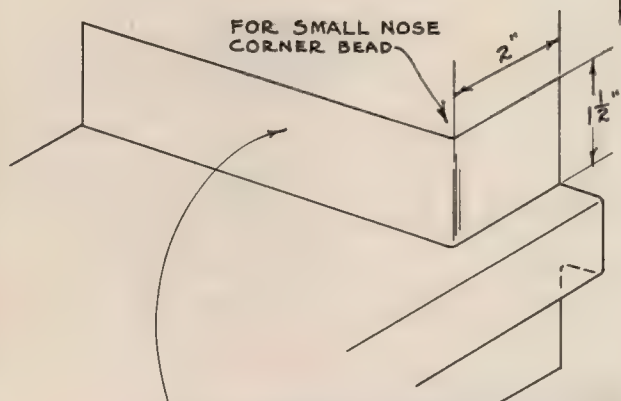
No 306



No 305

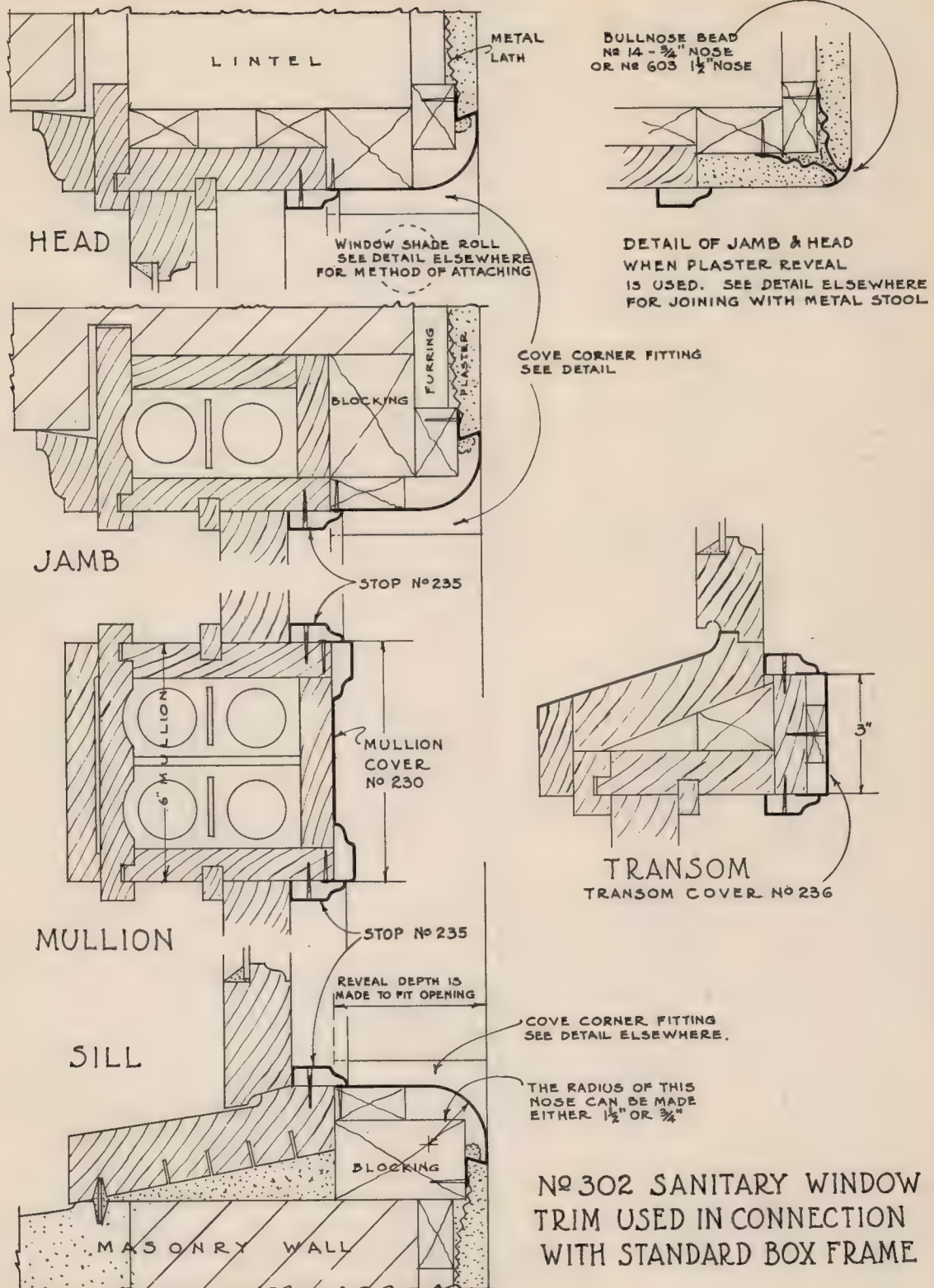


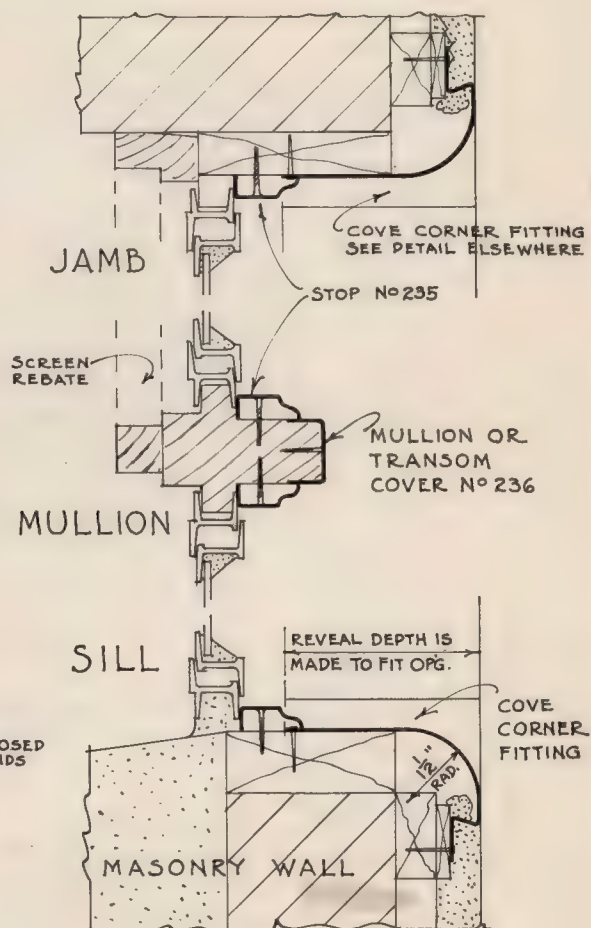
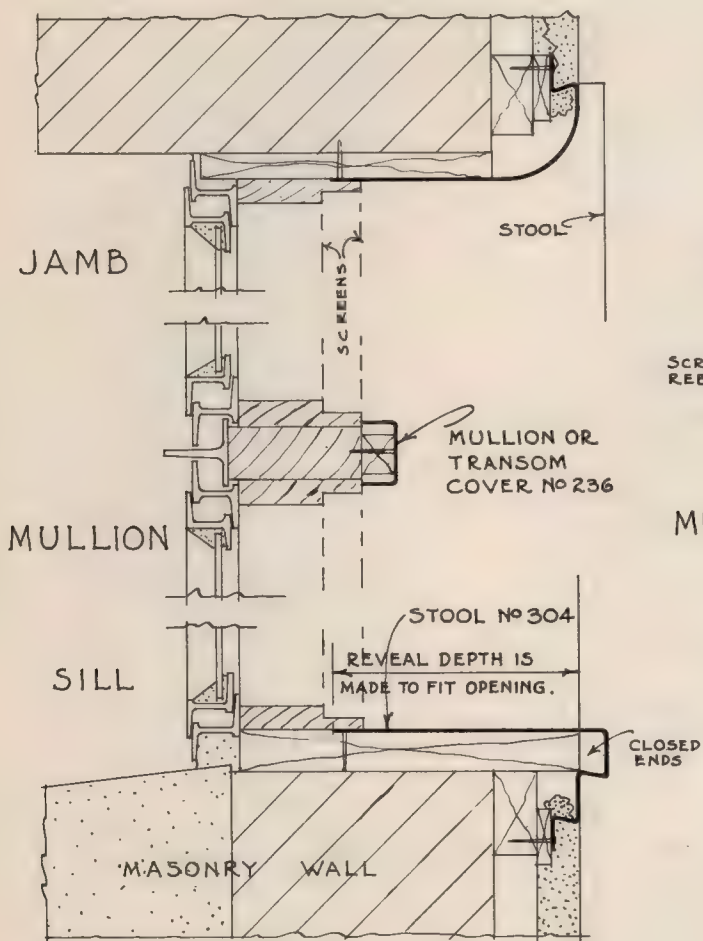
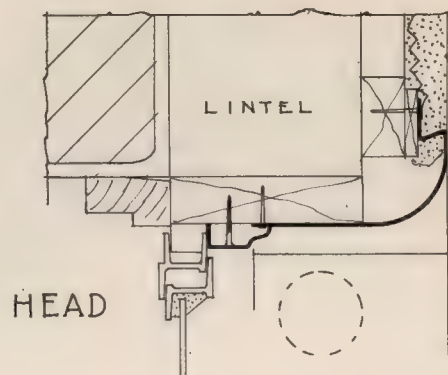
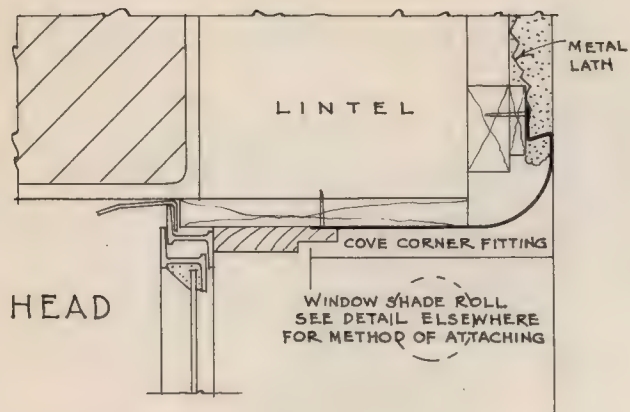
No 305
ALTERNATE



JAMB FINISH STRIP PUT ON STOOLS 304-307 AND 308
WHERE PLASTER JAMBS ARE USED BUT ONLY WHEN SPECIFIED.

HALF FULL SIZE PROFILES OF
KNAPP STANDARD METAL WINDOW STOOLS
FOR FURTHER DETAILS CONSULT FOLLOWING PAGES

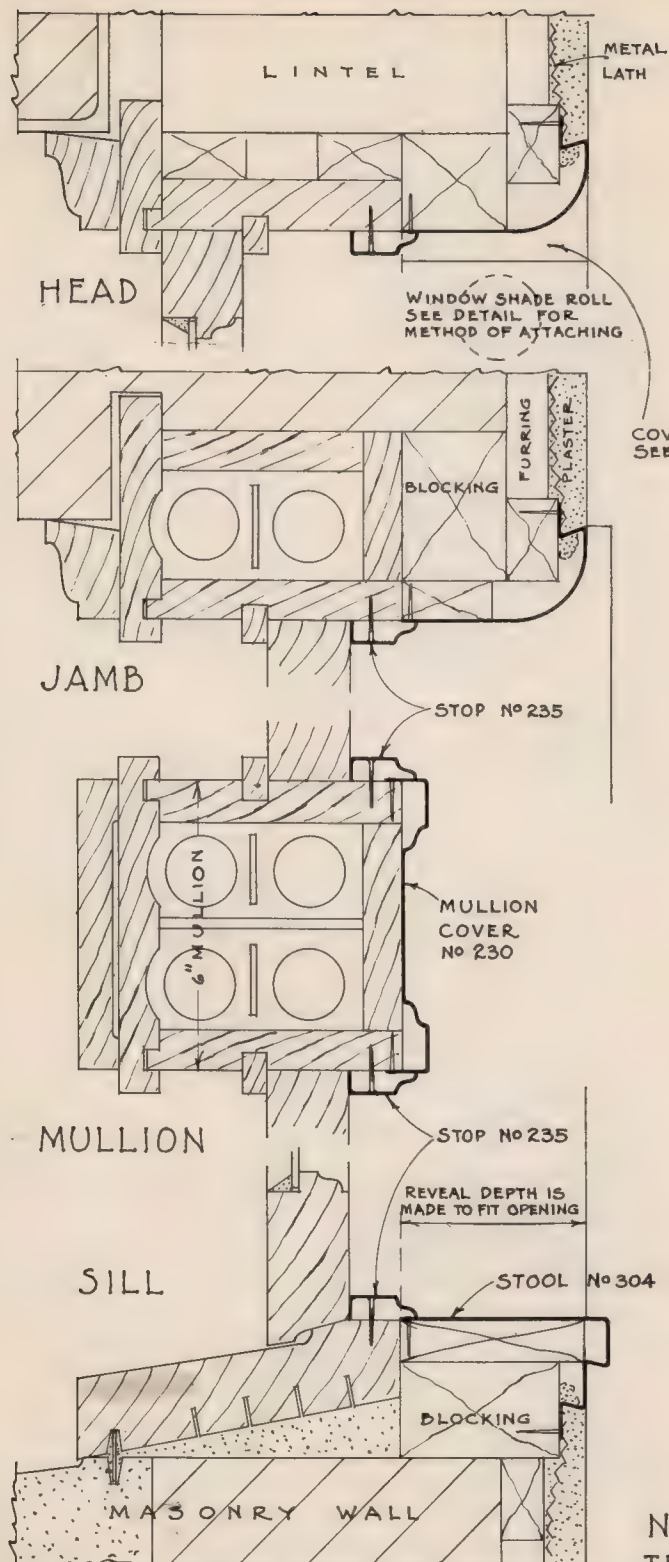




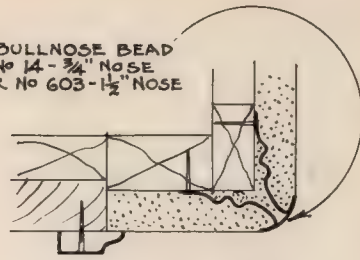
SASH TO SWING OUT

SASH TO SWING IN
NO 302 TRIM COMPLETE

NO 302 TRIM AND NO 304 STOOL USED IN
CONNECTION WITH STANDARD STEEL SASH

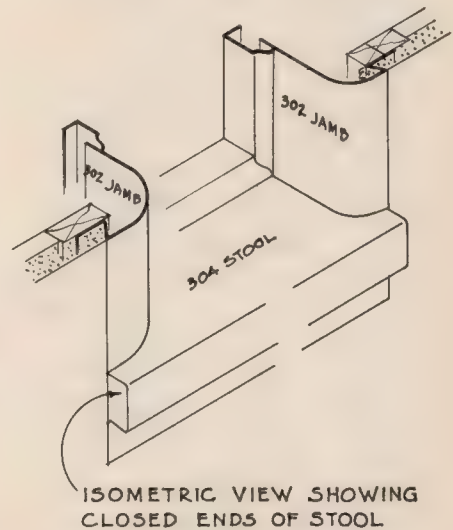
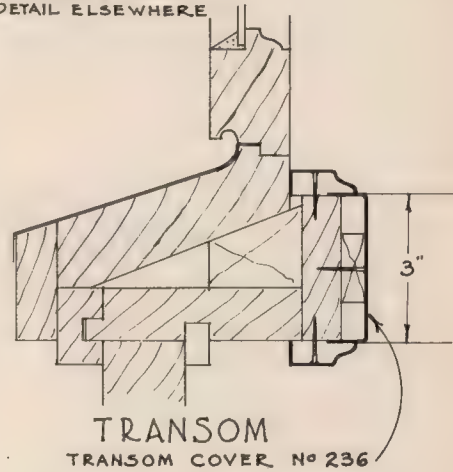


BULLNOSE BEAD
NO 14 - $\frac{3}{4}$ " NOSE
OR NO 603 - $1\frac{1}{2}$ " NOSE

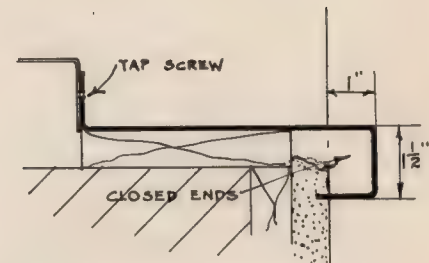
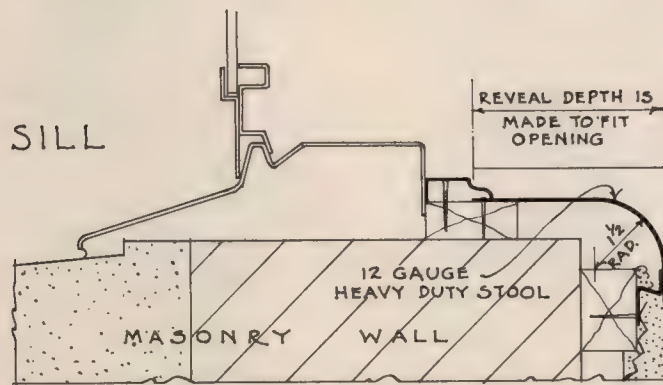
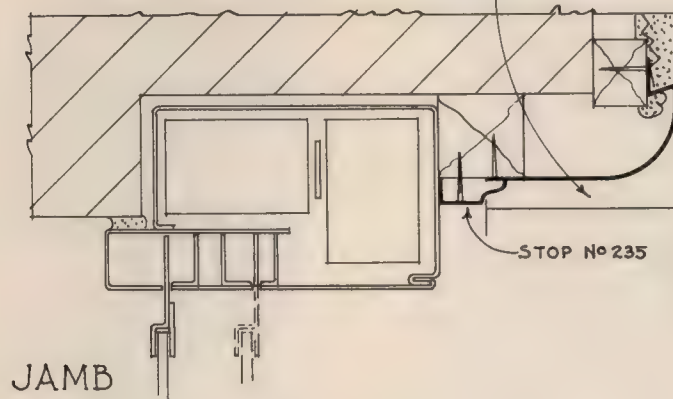
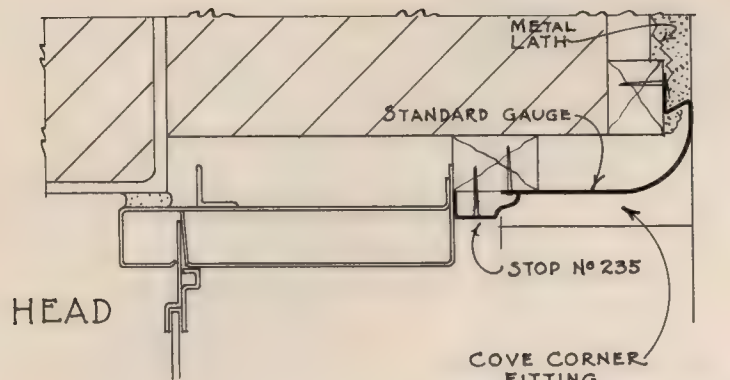


DETAIL OF JAMB & HEAD
WHEN PLASTER REVEAL
IS USED. SEE DETAIL ELSEWHERE
FOR JOINING WITH METAL STOOL

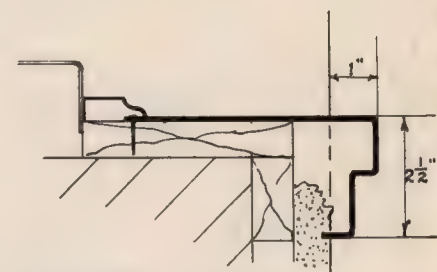
COVE CORNER FITTING
SEE DETAIL ELSEWHERE



NO 304 STOOL AND NO 302
TRIM USED IN CONNECTION
WITH STANDARD BOX FRAME

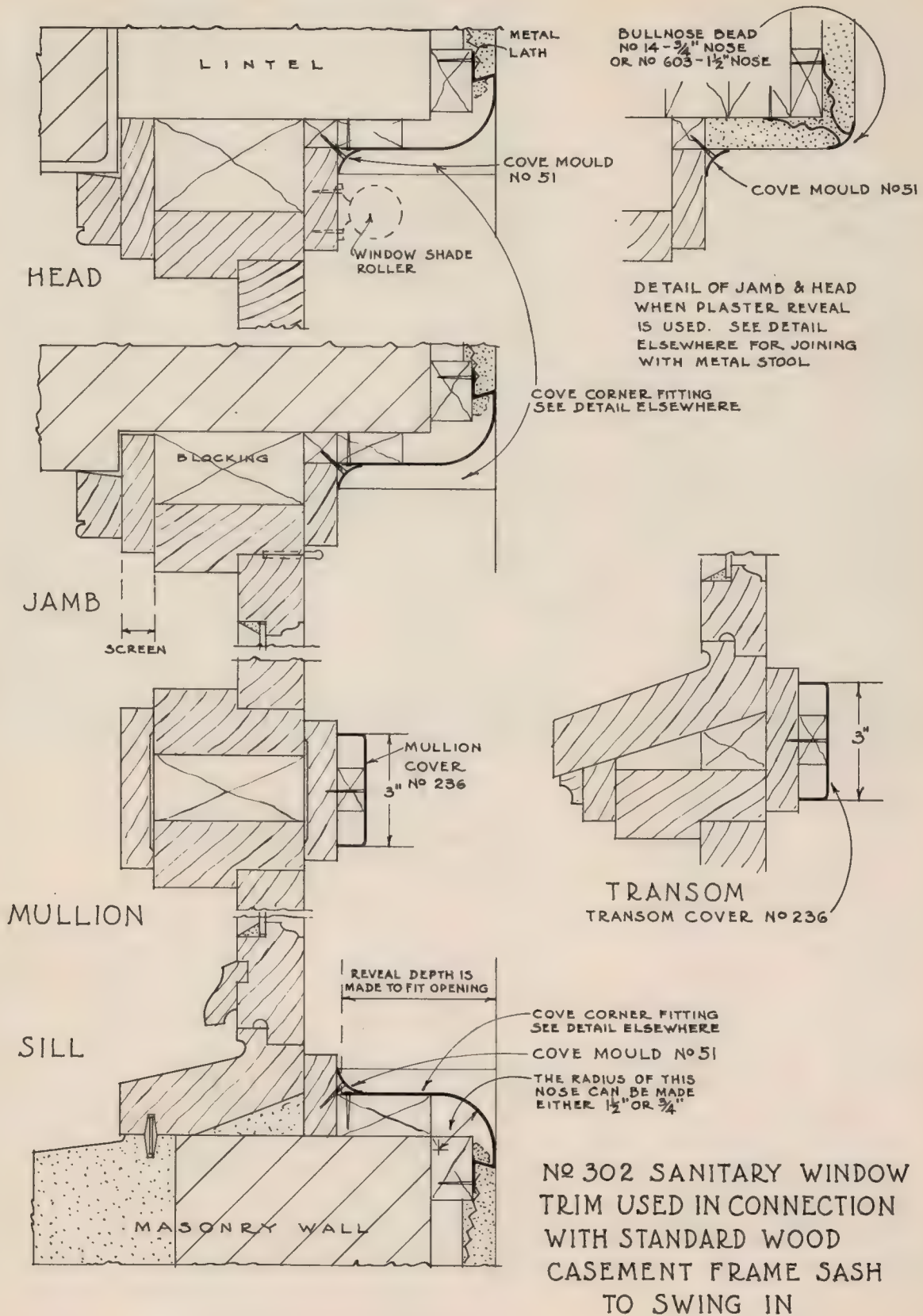


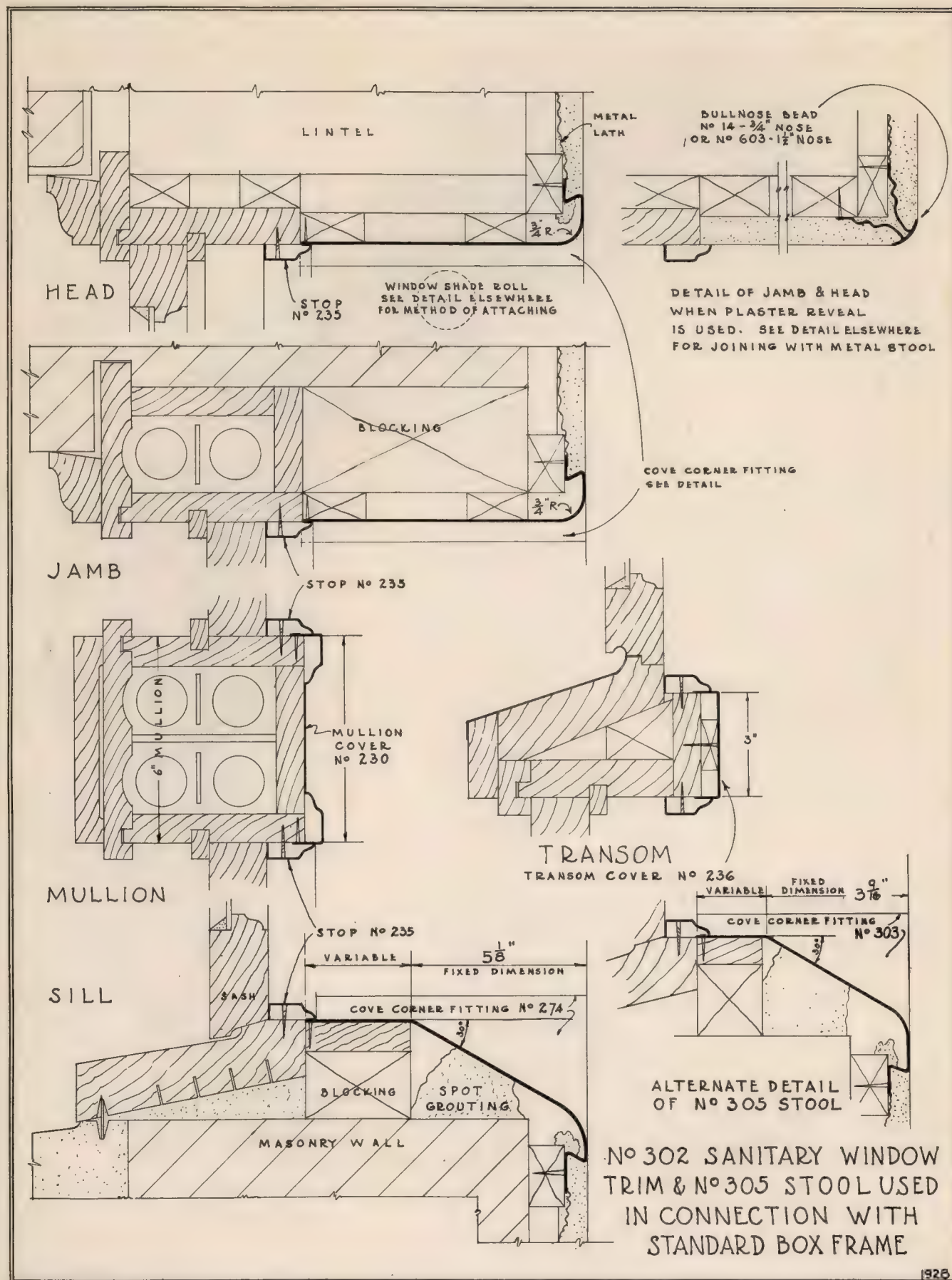
ALTERNATE STOOL No 308
SHOWING TAP SCREW CONNECTION
WITH FRAME OMITTING STOP

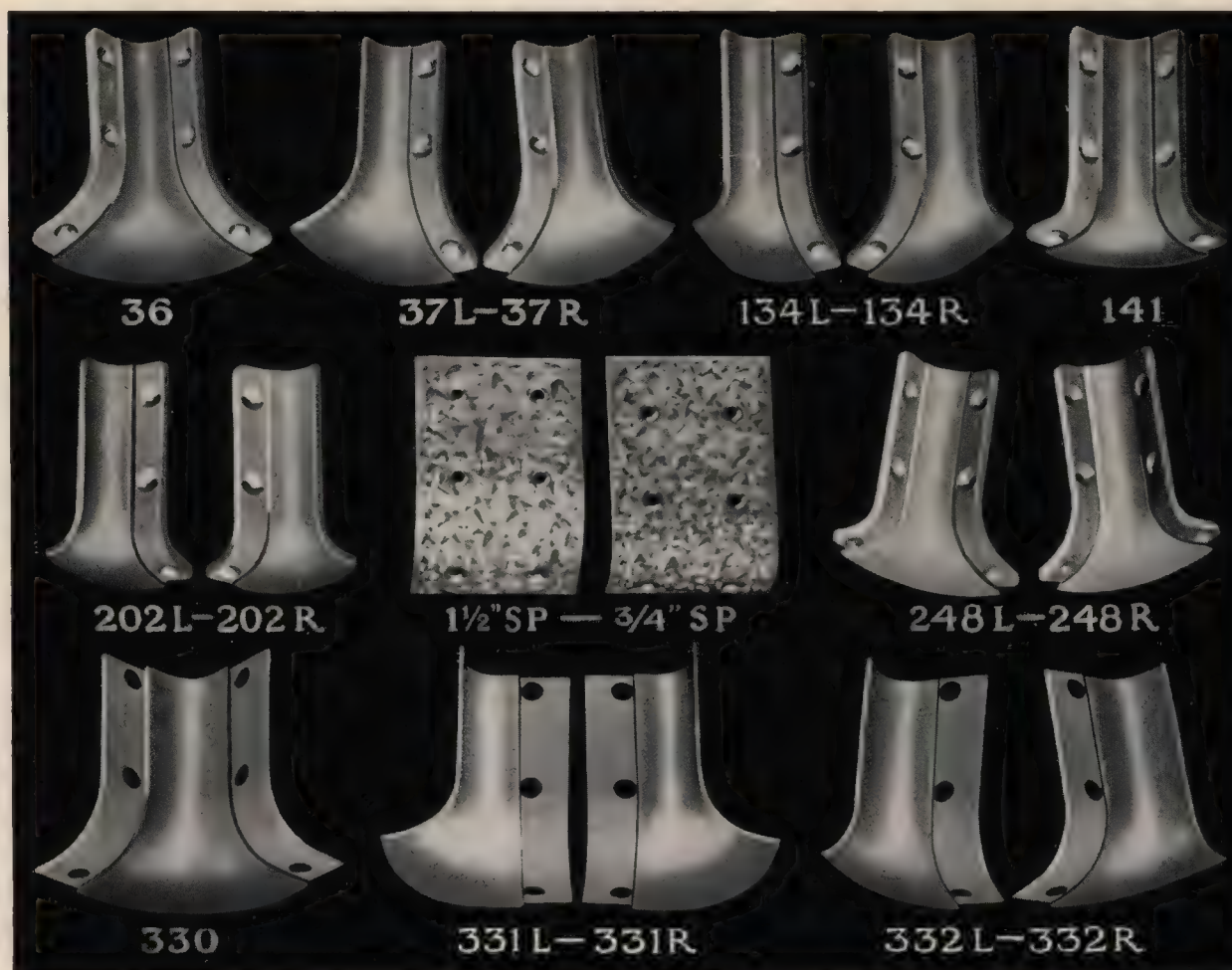


ALTERNATE SHOWING
12 GAUGE STOOL No 307

No 302 SANITARY WINDOW
TRIM USED IN CONNECTION
WITH SOLID METAL WINDOW





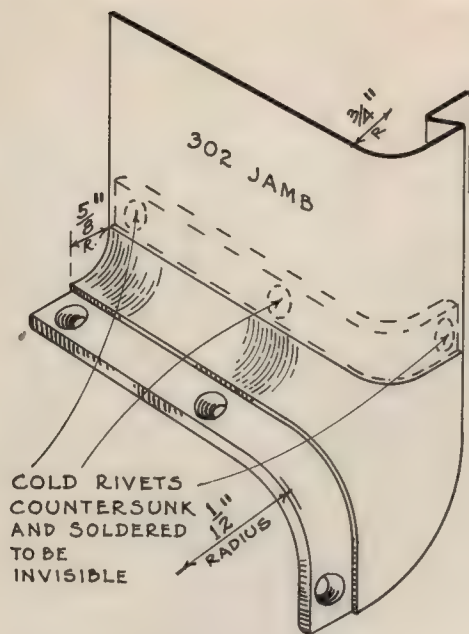


NO. 302 WINDOW STOOL CAST IRON AND STAMPED METAL FITTINGS

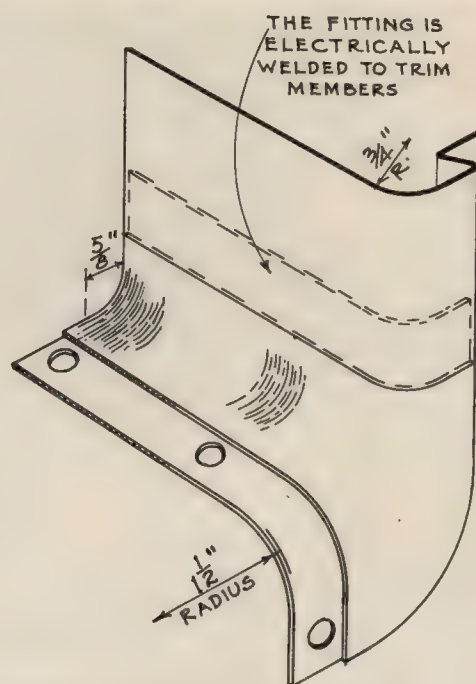
Note: For pricing purposes only all Reveals of 4 inches or less are termed "Short". All Reveals over 4 inches are termed "Long."

- Pattern No. **36** —Cast iron $1\frac{1}{2}$ inch radius "Short" reveal, $1\frac{1}{2}$ inch radius metal jamb.
 Pattern No. **33** —Same as No. 36, "Long" reveal.
 Pattern No. **37L&R**—Left and Right hand cast iron $1\frac{1}{2}$ inch radius corner fitting "Short" reveal, $1\frac{1}{2}$ inch radius plaster jamb.
 Pattern No. **140L&R**—Same as No. 37L and R, "Long" reveal.
 Pattern No. **134L&R**—Left and Right hand cast iron $1\frac{1}{2}$ inch radius "Short" reveal, $\frac{3}{4}$ inch radius plaster jamb.
 Pattern No. **135L&R**—Same as No. 134L and R, "Long" reveal.
 Pattern No. **141** —Cast iron $\frac{3}{4}$ inch radius "Short" reveal, $\frac{3}{4}$ inch radius metal jamb.
 Pattern No. **142** —Same as No. 141, "Long" reveal.
 Pattern No. **202L&R**—Left and Right hand cast iron $\frac{3}{4}$ inch radius "Short" reveal, $\frac{3}{4}$ inch radius plaster jamb.
 Pattern No. **205L&R**—Same as No. 202L and R, "Long" reveal, $1\frac{1}{2}$ inch.
 S. P.—Splice plate, $1\frac{1}{2}$ inch radius stool.
 S. P.—Splice Plate, $\frac{3}{4}$ inch radius stool.
 Pattern No. **248L&R**—Left and Right hand cast iron $1\frac{1}{2}$ inch radius, "Short" reveal, $\frac{3}{4}$ inch radius metal jamb.
 Pattern No. **330** —Stamped metal $1\frac{1}{2}$ inch radius corner fitting "Short" reveal, $1\frac{1}{2}$ inch radius metal jamb.
 Pattern No. **331L&R**—Left and Right hand stamped $1\frac{1}{2}$ inch radius corner fitting, $1\frac{1}{2}$ inch radius plaster jamb.
 Pattern No. **332L&R**—Left and Right hand stamped $1\frac{1}{2}$ inch radius corner fitting, $\frac{3}{4}$ inch radius plaster jamb.
 Pattern No. **333** —Same as No. 330, "Long" reveal.
 Pattern No. **334** —Same as No. 331L and R, "Long" reveal.
 Pattern No. **335** —Same as No. 332L and R, "Long" reveal.

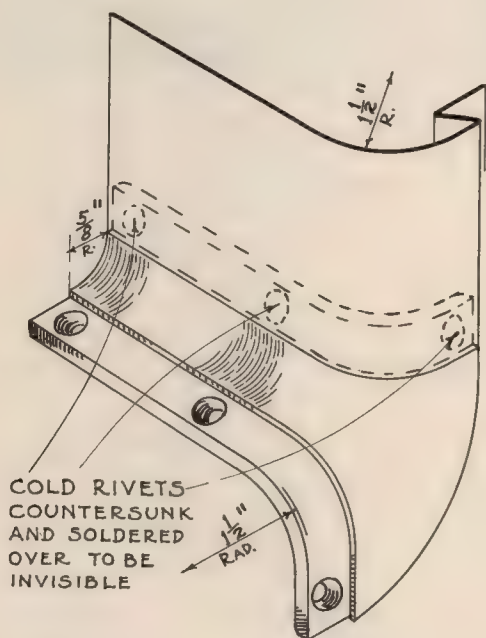
(Patterns in Black figures are illustrated. Those in Light figures are not shown here.)



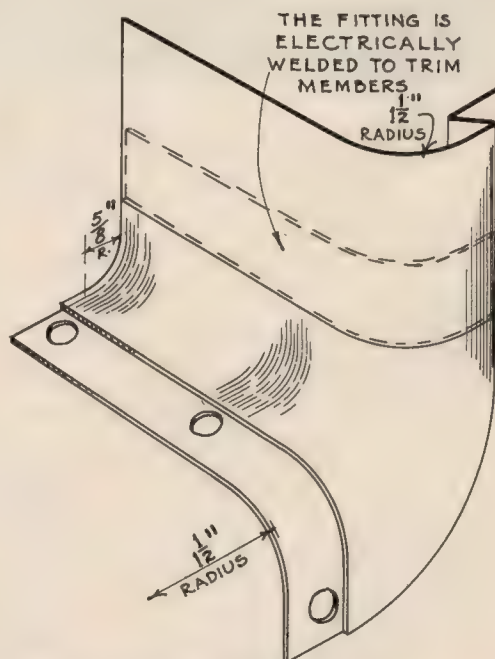
DETAIL OF STANDARD CAST IRON COVE CORNER FITTING UNITING A 1 1/2" RAD. STOOL WITH A 3/4" RAD. JAMB



DETAIL OF STANDARD STAMPED STEEL FITTING UNITING A 1 1/2" RAD. STOOL WITH A 3/4" RAD. JAMB.



DETAIL OF STANDARD CAST IRON COVE CORNER FITTING USED WITH 302 TRIM



DETAIL OF STANDARD STAMPED STEEL FITTING USED WITH 302 TRIM



Pattern No. **310L**—Left hand No. 305 splay stool corner fitting, fixed splay, reveal $2\frac{1}{4}$ inches, overall reveal variable with No. 302, $\frac{3}{4}$ inch radius jamb.

Pattern No. **310R**—Right hand No. 305 splay stool corner fitting, fixed splay, reveal $2\frac{1}{4}$ inches, overall reveal variable with No. 302, $\frac{3}{4}$ inch radius jamb.

Pattern No. **303L**—Left hand No. 305 splay stool corner fitting, fixed splay, reveal $3\frac{1}{8}$ inches, overall reveal variable, with No. 302, $\frac{3}{4}$ inch radius jamb.

Pattern No. **303R**—Right hand No. 305 splay stool corner fitting, fixed splay, reveal $3\frac{1}{8}$ inches, overall reveal variable, with No. 302 $\frac{3}{4}$ inch radius jamb.

Pattern No. **274L**—Left hand No. 305 splay stool corner fitting, fixed splay, reveal $5\frac{1}{8}$ inches, overall reveal variable, with No. 302, $\frac{3}{4}$ inch radius jamb.

Pattern No. **274R**—Right hand No. 305 splay stool corner fitting, fixed splay, reveal $5\frac{1}{8}$ inches, overall reveal variable, with No. 302, $\frac{3}{4}$ inch radius jamb.

Pattern No. **344L**—Left hand corner fitting, No. 305 splay stool $1\frac{3}{4}$ inch splay, reveal 4 inches, overall reveal with No. 302, $1\frac{1}{2}$ inch radius jamb.

Pattern No. **344R**—Right hand corner fitting, No. 305 splay stool $1\frac{3}{4}$ inch splay, reveal 4 inches, overall reveal with No. 302, $1\frac{1}{2}$ inch radius jamb.

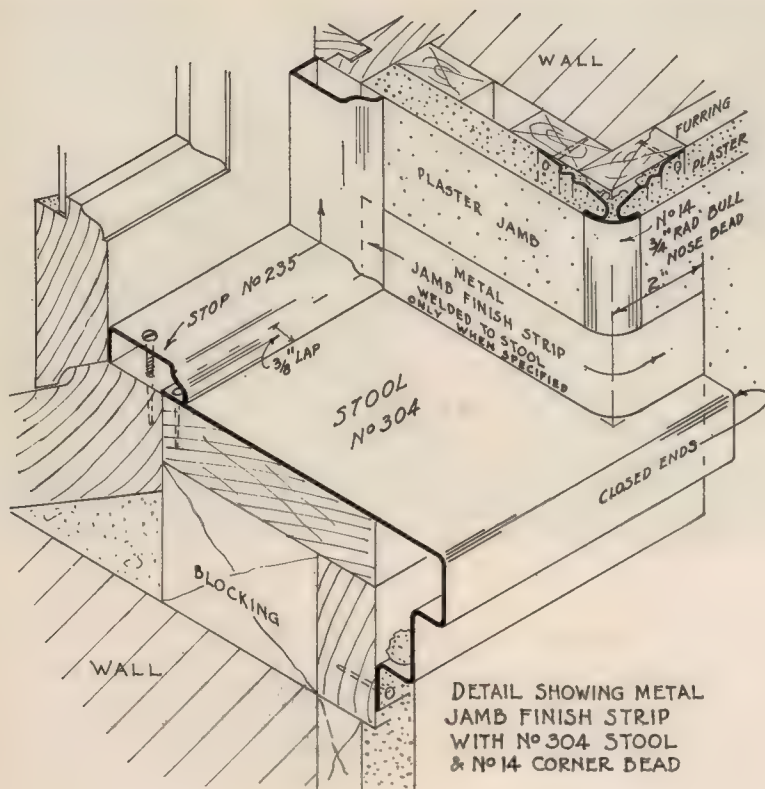
Pattern No. **345L**—Left hand corner fitting, No. 305 splay stool $2\frac{1}{2}$ inch splay, reveal 4 inches, overall reveal with No. 302, $1\frac{1}{2}$ inch radius jamb.

Pattern No. **345R**—Right hand corner fitting, No. 305 splay stool $2\frac{1}{2}$ inch splay, reveal 4 inches, overall reveal with No. 302, $1\frac{1}{2}$ inch radius jamb.

Pattern No. **268L**—Left hand corner fitting for No. 302 stool and No. 305— $116\frac{1}{2}^{\circ}$ splay jamb.

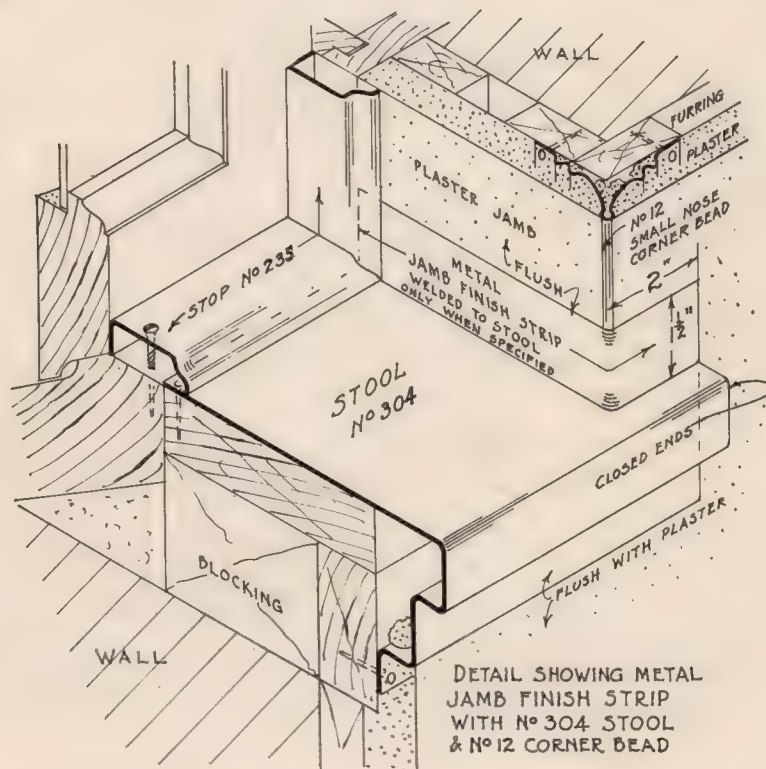
Pattern No. **268R**—Right hand corner fitting for No. 302 stool and No. 305— $116\frac{1}{2}^{\circ}$ splay jamb.

(Patterns in Black figures are illustrated. Those in Light figures are not shown here.)



(Left)

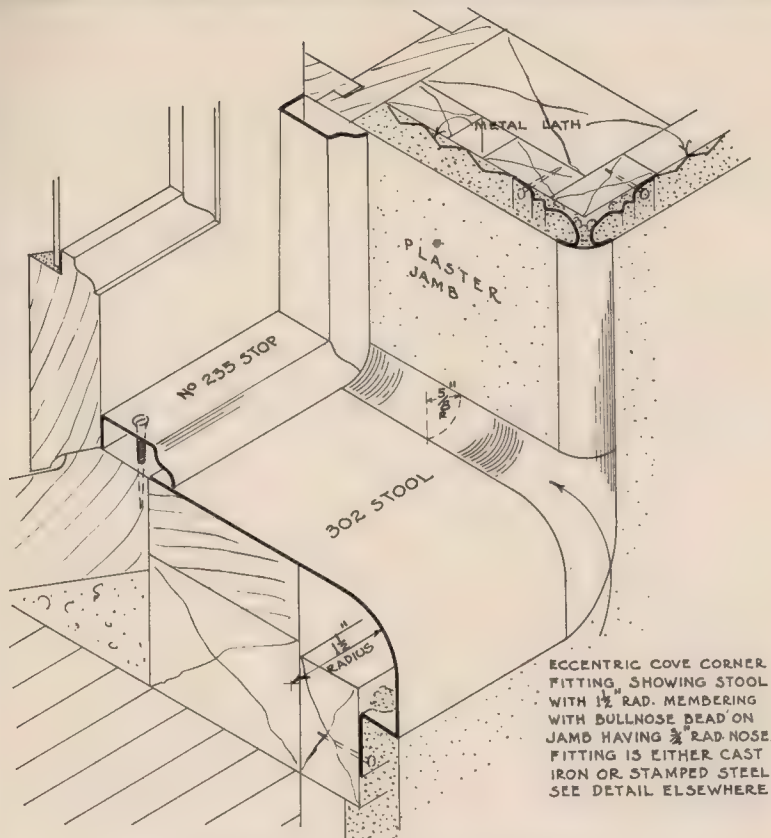
Illustrating method of joining flat type metal window stool with plaster jamb where a bull nose bead is used. Jamb finish strip is not put on stool unless so specified but is recommended as a protection to the plaster jamb at the stool line. This jamb finish strip can be made for a splay jamb if desired.



(Right)

Illustrating same condition as above except using a small nose corner bead instead of a bull nose.

DETAIL SHOWING METAL JAMB FINISH STRIP WITH No 304 STOOL & No 12 CORNER BEAD



(Left)

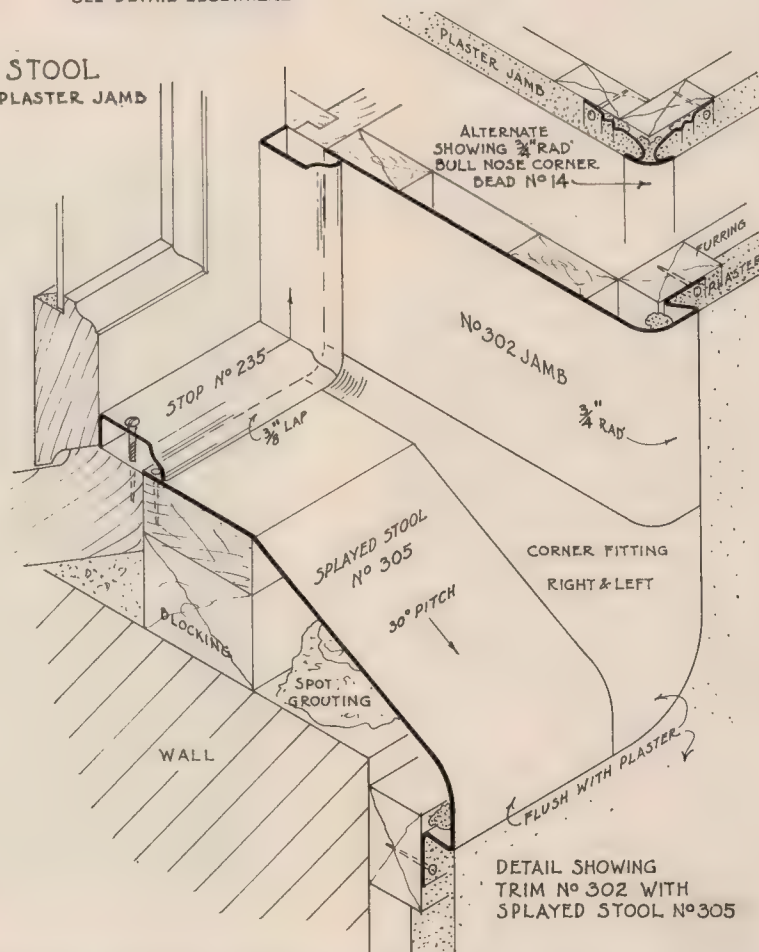
Illustrating method of joining metal curved nose Style 302 stool with plaster jamb using a bull nose bead at jamb corner. This construction is standard. In specifying, be sure to state whether stamped or cast corner fittings are desired.

No 302 SANITARY STOOL
SHOWING COVE CORNER WITH PLASTER JAMB

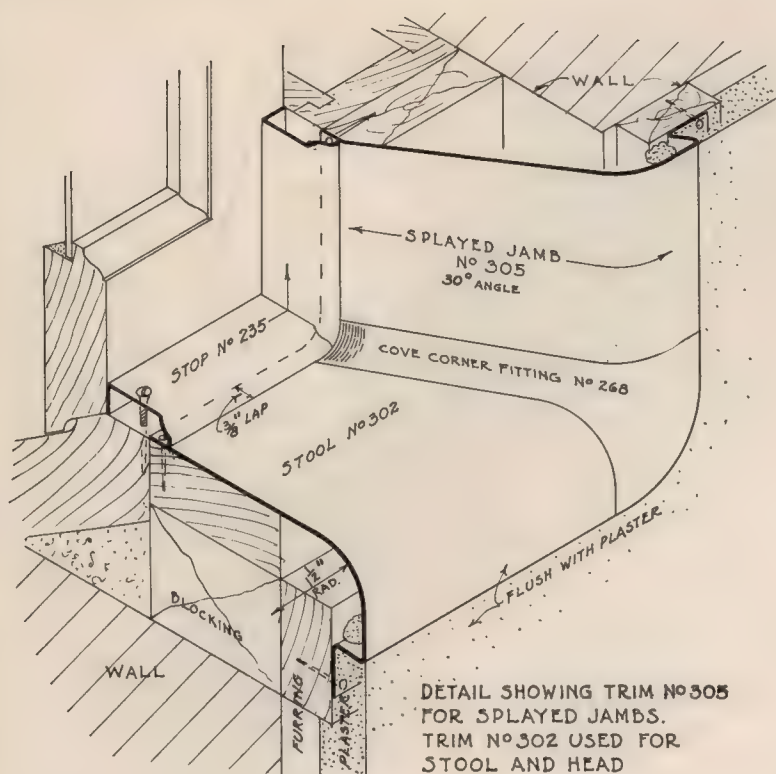
(Right)

Illustrating how Style 302 trim is used for jamb with Style 305 splayed stool. See page 20 for illustrations of splay stool.

NOTE: The splayed part of the corner fittings is fixed and cannot vary without producing a new pattern for each case. See details on page 20 and list of splay fittings on page 23.



DETAIL SHOWING
TRIM No 302 WITH
SPLAYED STOOL No 305



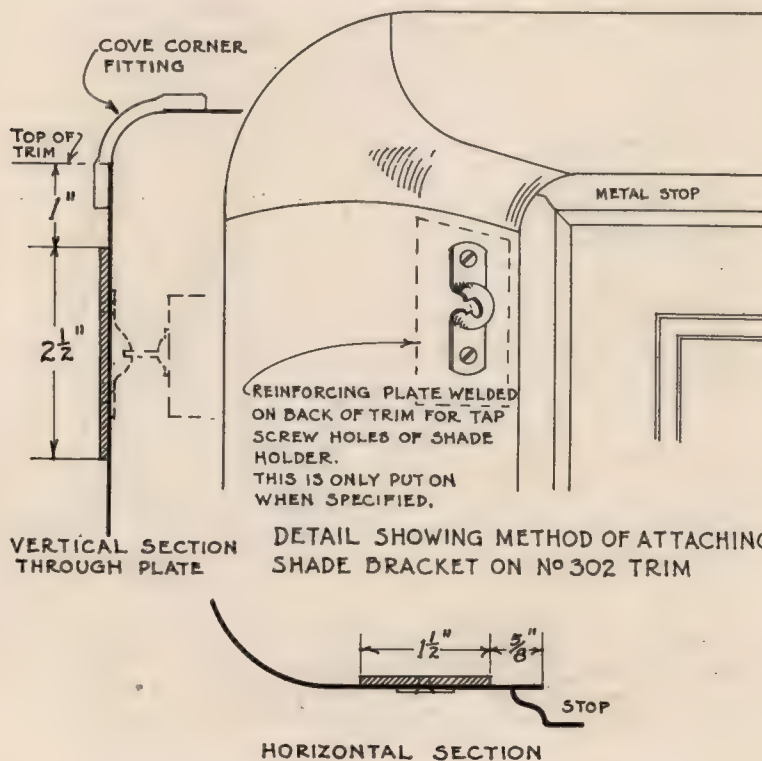
(Left)

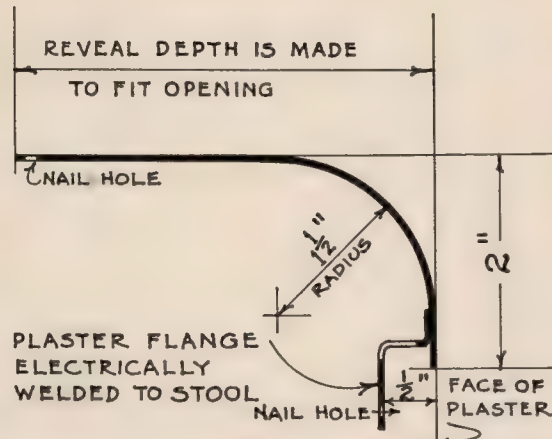
Illustrating Style 305 used as a splayed jamb, in connection with Style 302 used as a stool (and head). Note the corner fitting required.

(Right)

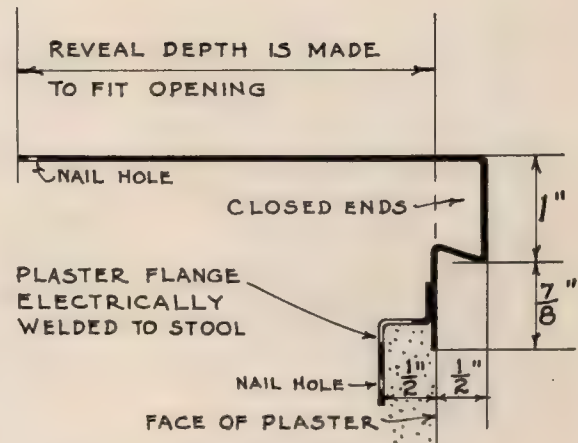
Illustrating method of attaching shade holder or other similar attachments to face of window trim. The reinforcing plate is not standard and if desired must be specified. If trim is backed with wood blocking this attachment is not necessary.

In a great many cases these brackets have been attached with an ordinary metal screw without the necessity for a back plate or blocking.





DETAIL OF NO 302 TRIM
CONSTRUCTION WHERE
GAUGE OF METAL IS 16-14 OR 12



DETAIL OF NO 304 STOOL
CONSTRUCTION WHERE
GAUGE OF METAL IS 16-14 OR 12

When the gauge of metal for window stools No. 302 or No. 304 is heavier than 18 (Note: Stools can be made 16, 14 or 12 gauge) then the attaching flange is welded to the body of the stool as illustrated above. This is done to provide a sharp point of contact with the plaster as otherwise the bend in the heavier gauges would produce a tendency to feather-edge-chip the plaster.

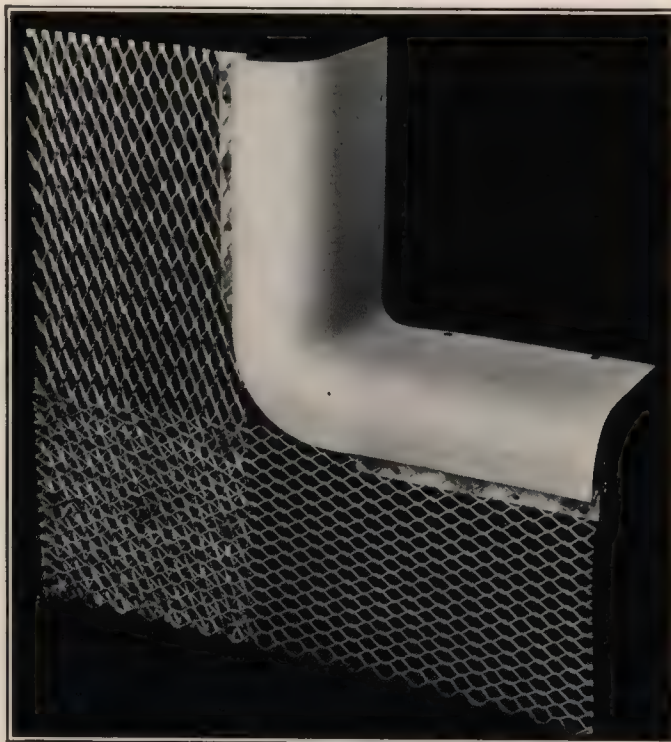
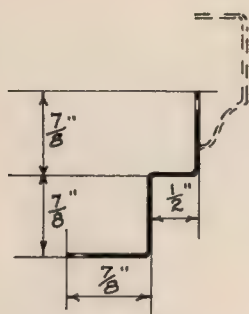
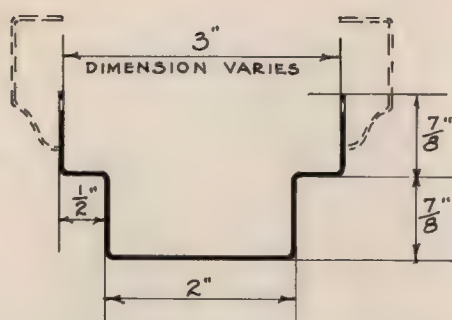


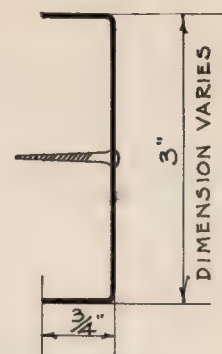
Photo illustration of a 6 inch strip of metal lath electrically welded to flange of No. 302 trim. This is favored in those cases where wood blocking or wood bucks are not otherwise covered and prevents cracking at this point. This strip is not always necessary and consequently is not a standard part of the trim but is only put on when in the judgment of the architect it becomes essential and is so specified.



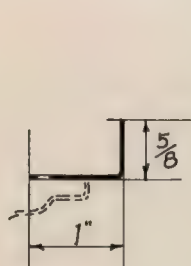
JAMB OR HEAD
LINER NO 237



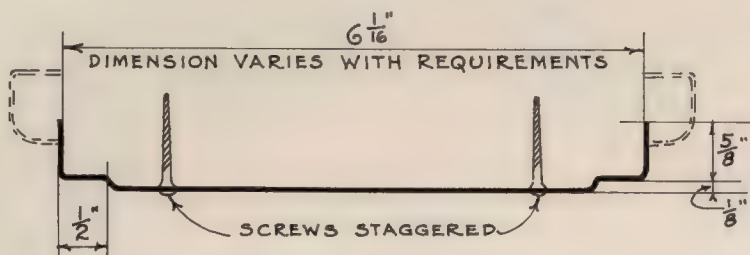
MULLION COVER NO 238



TRANSOM
COVER NO 236



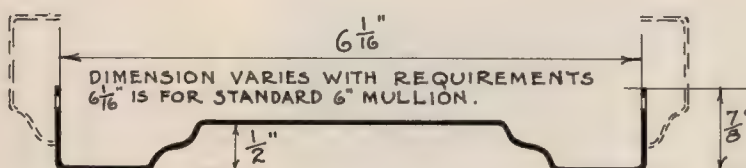
JAMB OR HEAD
LINER NO 232



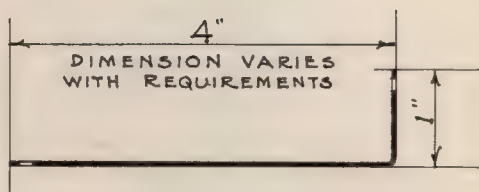
MULLION COVER NO 231



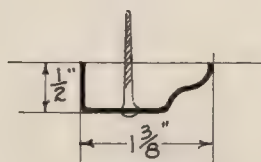
STOP NO 234



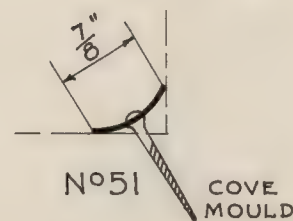
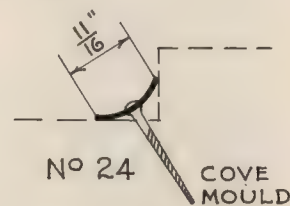
MULLION COVER NO 230



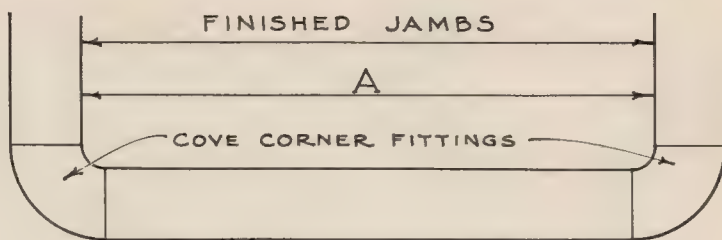
JAMB & HEAD LINER NO 233



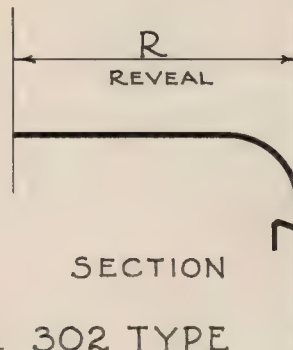
STOP NO 235



HALF FULL SIZE PROFILES OF KNAPP STANDARD
MULLION TRIM. JAMB LINERS. TRANSOM COVERS AND STOPS,
FOR FURTHER DETAILS CONSULT FOLLOWING PAGES.

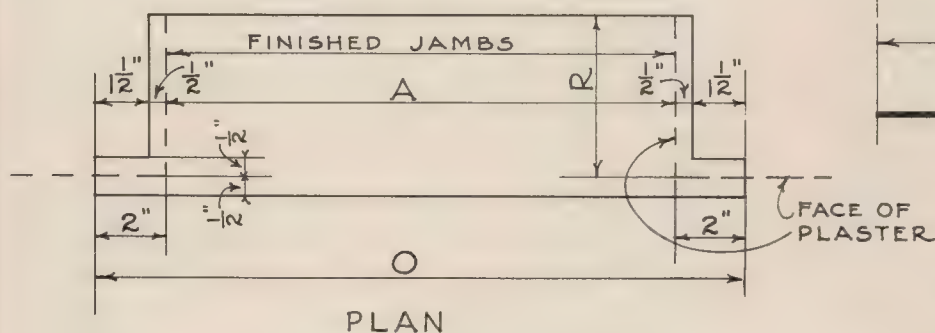


FRONT ELEVATION

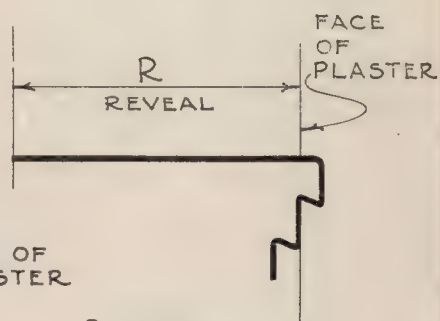


SECTION

MEASUREMENTS, REQUIRED FOR 302 TYPE



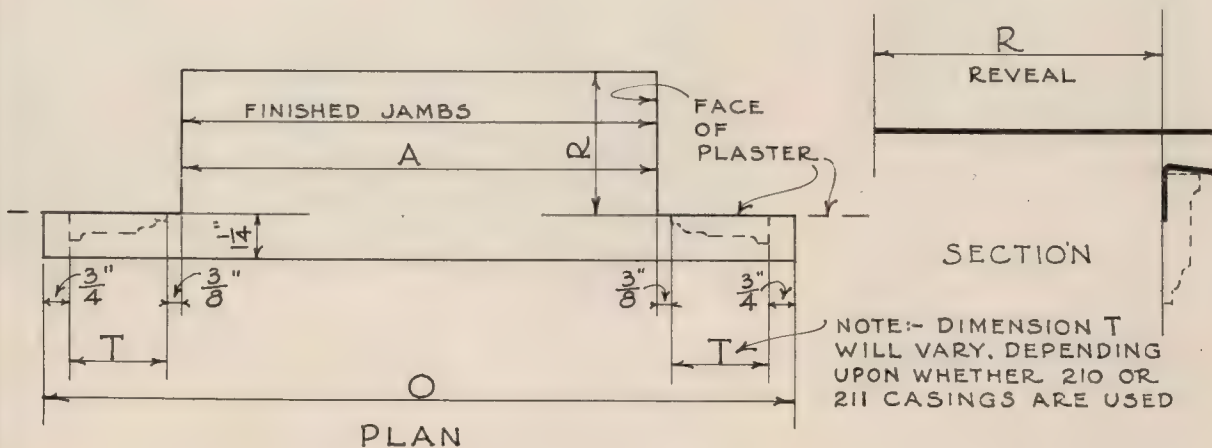
PLAN



SECTION

MEASUREMENTS REQUIRED FOR 304 STOOL

DIMENSIONS A-O-R ARE SIMILARLY REQUIRED FOR STOOLS NO 307 & 308



PLAN

SECTION

NOTE:- DIMENSION T
WILL VARY, DEPENDING
UPON WHETHER 210 OR
211 CASINGS ARE USED

MEASUREMENTS REQUIRED FOR 306 STOOL

DIAGRAMS SHOWING DIMENSIONS WHICH MUST BE
SUPPLIED WHEN ORDERING WINDOW STOOLS
WINDOW STOOLS ARE MADE TO ORDER FOR EACH OPENING

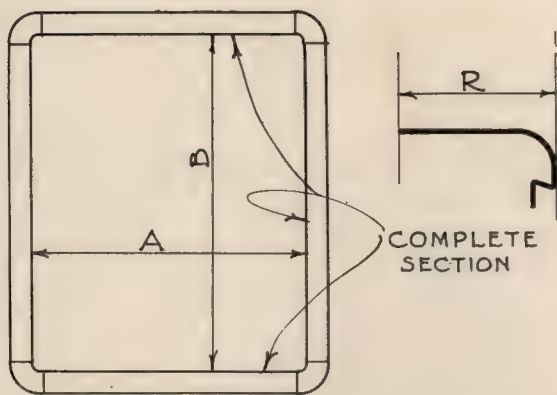


DIAGRAM 1
FOR WINDOW TRIMMED WITH
N° 302 MADE UP INTO
COMPLETE WELDED UNIT

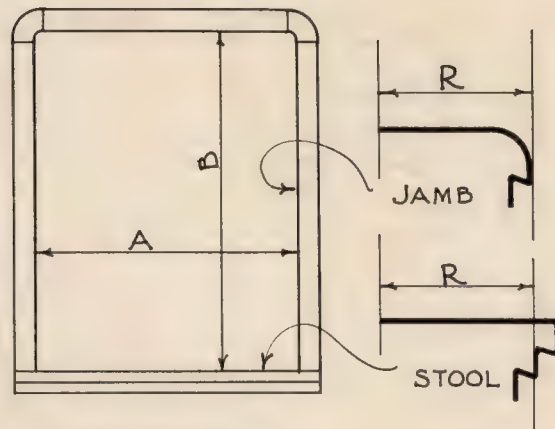
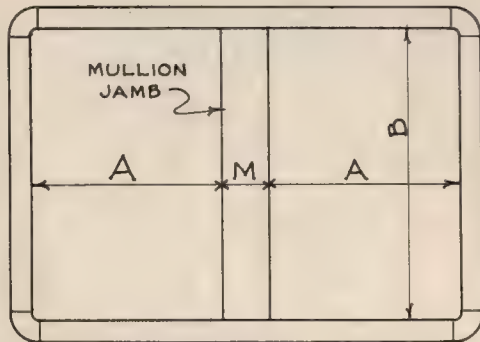


DIAGRAM 2
FOR WINDOW TRIMMED WITH N° 302
HEAD AND JAMBS BUT WITH N° 304,
307 OR 308 STOOL, MADE UP WITH
COMPLETE WELDED UNITS.



A IS DIMENSION FROM FINISH JAMB TO JAMB
B " " " " STOOL " HEAD
R " REVEAL " FACE OF PLASTER TO FRAME
T " WIDTH OF TRIM USED
M " " " MULLION

ELEVATION OF WINDOWS TRIMMED SAME
AS IN DIAGRAMS 1-2 OR 4 EXCEPT
WITH ADDITION OF MULLION.

WHEN MULLION IS USED
ADD DIMENSION M

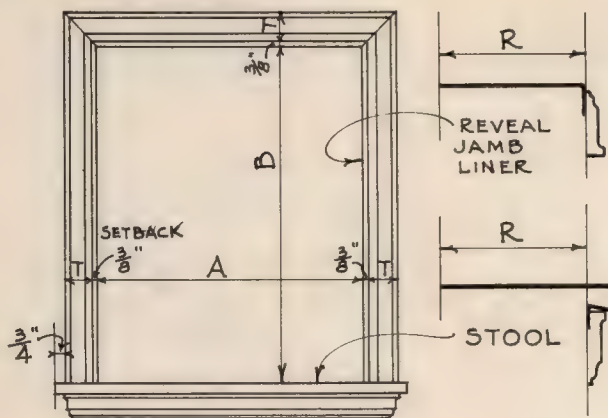


DIAGRAM 3
FOR WINDOWS TRIMMED WITH 210
OR 211 CASING AND 306 STOOL

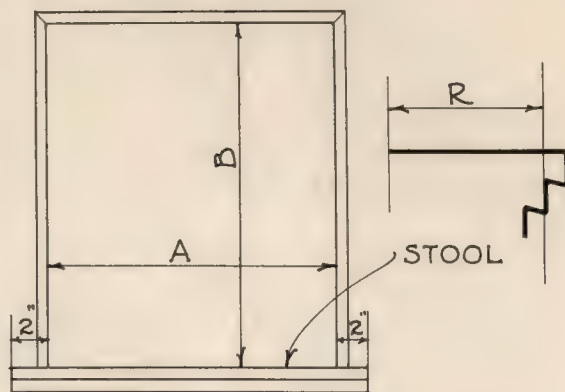


DIAGRAM 4
FOR WINDOWS TRIMMED WITH FLUSH
CASINGS (ANY STYLE) AND 304 STOOL

DIAGRAMS SHOWING DIMENSIONS WHICH MUST BE SUPPLIED
WHEN ORDERING COMPLETE WINDOW TRIM

SEE PREVIOUS PAGE FOR ADDITIONAL DATA REQUIRED FOR STOOLS



1—Kerfing—or cutting metal trim into small segments so that trim can be bent to necessary curvature.

2—Bending to curve desired and clamping same in position on templates preparatory to soldering

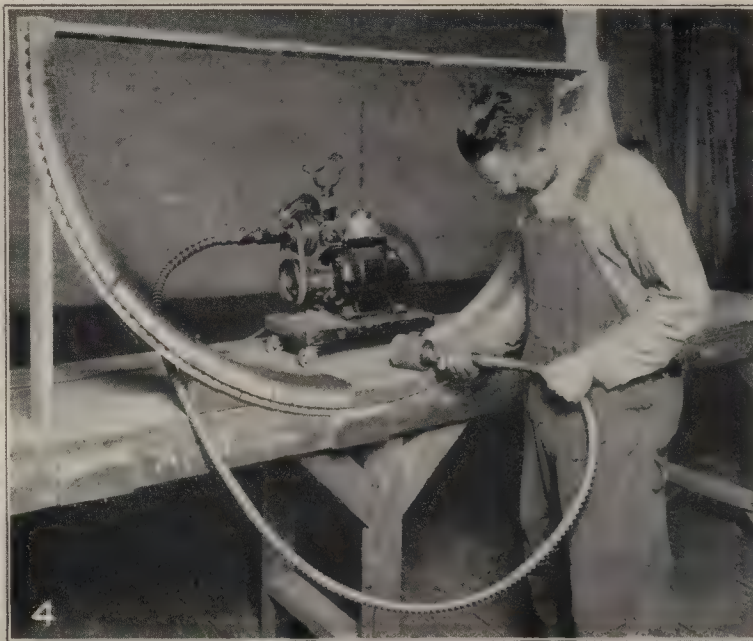
3—Closing the interstices by soldering.

ILLUSTRATING THE PROCESS OF CURVING METAL TRIM

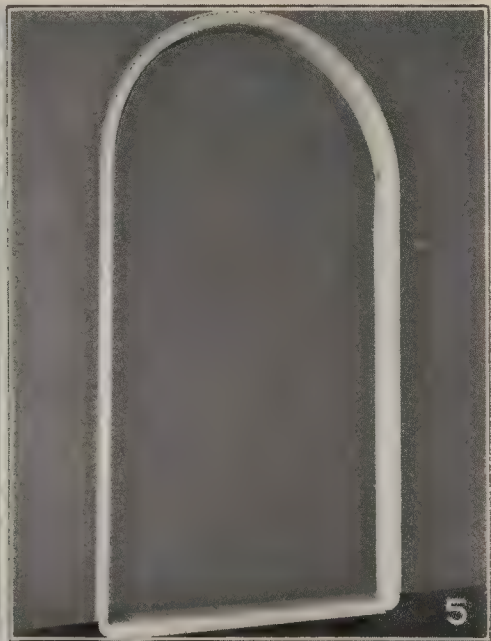
Inasmuch as the method of curving metal trim is not always understood, the accompanying photographic illustrations showing the progressive steps are given to show the process.

The principle involved as shown and illustrated in the curving of and No. 302 Window

Trim is the same for the curving of all metal trim, no matter what type it may be. Some of the types of small nose corner bead can be curved on the job by skilled workmen, but the principle involved in doing this is the same in all cases, namely—the kerfing process must be



4—Grinding the soldered surface down smooth with an electrically driven abrasive wheel.



5—The finished product, No. 302 Unit Window Trim, assembled, primed, and ready to be crated.

6—No. 302 Complete Window Trim units crated for shipment. These are factory made, to exact measurements, to fit window openings, ready to set in place.



employed. The smaller types of trim have a certain degree of "bendability" but not sufficient to make a curve for a small radius.

It must be borne in mind that no two conditions are exactly alike so far as the radius of curvature is concerned, and for every different radius a separate template must be set up.

It is important to note that having exact

measurements from the job itself, the curved trim is shipped to the job ready to install. It is carefully crated and should reach its destination in a solid rigid form so that the task of installation becomes a simple and easy one, merely requiring the placing of the trim in position, plumbing it, and fastening same to the wall.

Section II

KNAPP METAL BASE BOARDS

Essential Information and Specification Data

FIFTEEN years of use have shown the merit of Knapp Metal Bases. They stand wear and abuse; do not shrink or warp; will not house vermin; can be easily cleaned and maintained; are fireproof and rodent proof. In cost they compare favorably with wood.

The flush-with-plaster types are indispensable for hospitals, schools, and institutional buildings. The applied-after-plaster types meet the needs of all other classes of structures.

See Section XI for Knapp Wyr-Way electrical wire carrying base.

SPECIFICATION DATA

WHERE METAL BASE IS TO BE USED

A schedule showing the exact rooms or spaces where metal base is to be used is very helpful and desirable.

TYPE OF BASE AND HEIGHT

The types of base selected should be specified by number as given in this handbook. The standard height of the base should be specified. The illustrations herein show these standards.

DEPTH OF FLOOR FLANGE FOR BASE NO. 202

In the case of base Style 202 only, it is necessary to specify whether the depth of the floor flange is $\frac{1}{4}$ inch, $\frac{1}{2}$ inch or $\frac{3}{8}$ inch. This particular base is designed for various floor finishes. See details on page 41.

KIND OF METAL AND GAUGE (U. S. STANDARD)

All base boards are made from extra tight coat (hot process) galvanized steel sheets. The following styles are made in 20 gauge metal only, regardless of height, 209, 210, 211, 212, 203, 204 and 204½. In the case of all other styles the 4 inch and 6 inch base is made of either 20 or 18 gauge. In the 8 inch Style 202 base the gauge is 16. Style 43 Cove is

made in 24 gauge only or in brass or bronze, if so specified. The cove member of base boards 204, 204½, 205, 205½ and 501½ can also be made of brass or bronze when desired. These coves are of 18 gauge steel ordinarily.

FINISH

All base boards are sent from the factory with a coat of *KNAPP SPECIAL PRIMER*, on the exposed surface only. This coat is not so much a protection to the metal (which is already tight coat galvanized) as it is a necessary ground priming coat for subsequent decoration. It adheres tenaciously to the metal and dries hard. It is applied by the compressed air method and will not peel off.

Finishes applied to the base boards at the factory would be liable to injury during the construction period, consequently we recommend that the method of finish be specified under painting or decorating and to be put on after base is applied in place and the plastering is finished.

GROUNDINGS

Wood grounds where required should be specified to be furnished in place by the carpenter contractor. The illustrations herein show where grounds are required and should be

placed. In the case of two member base boards (Styles 501½, 204, 204½, 205, 205½) the location of grounds for the cove member must not be forgotten when used over other than wood floors. The 6 inch base boards, Nos. 212, 203, 204, and 204½ require a double row of grounds.

No wood grounds are required for the plastered-in type of base boards, Styles 202, 501, 205, 205½, and 206. Grounds are required for the cove member only in base Nos. 205, 205½, and 501½. Grounds are required for holding the lower part of base Styles 201 and 207.

FITTINGS

Corner fittings for right angles and some special degree angles both for internal and external and terminating points of base boards are carried in stock. External corner fittings are made square nosed or ¾ inch or 1½ inch radii bullnosed. Internal fittings are made square or ¾ inch or 1½ inch radii coved.

Plinth fittings of special contour designed to be used with KNAPP SANITARY FLUSH CASINGS are provided for most of the base boards.

Plinth blocks for other kinds of casings are also provided to go with bases Nos. 202-501-203-204-205-210-211.

End stops used for terminating points other than door openings (but frequently used at door openings instead of plinths) are made for all base boards.

Except in the case of bases Nos. 210-211-212 all fittings are made of the best grades of grey cast iron, free of imperfections, sand blasted and machined. They are dipped in priming paint. Fittings for bases Nos. 210-211-212 are stamped steel and are lapover instead of flush. Plinth blocks for these bases are of cast iron.

No fittings are provided for Style 209 which is usually used only in closets where corners are mitered or coped.

Special fittings for odd usages or unusual corners or any condition not here illustrated can be made if the number required is large enough to justify patterns, otherwise the few special angle corners on any job are usually made by a skilled workman right on the job.

GROUTING

It is desirable to grout with a cement grout behind "plastered-in" types of base. Slots in the upper nailing flange are provided for this purpose. Specifications should call for a grout of the consistency of thick syrup poured by means of a grouting can through these slots.

ERECTION

Specifications should call for base to be erected according to manufacturers instructions and using special tools loaned by manufacturer for punching and sawing.

All base boards are furnished in 10 ft. stock lengths except 210-211-212 which are standardized at 12 ft., and are sawed to exact lengths on the job. Where lengths abut one another, splice-plates should be used. These are furnished with the base.

Where base boards are of the type that are screwed to grounds *a screw should be used for every hole*. These holes are punched at the factory approximately 16 inches on centers. (See diagram on page 74.)

Oval headed screws for erection are furnished with the base. The heads of screws are partially countersunk.

Where "plastered-in" base boards are nailed in place, cement coated nails should be used and the base nailed to wood blocks or "Nogging" left in the wall or partitions.

Cast iron fittings are made with an offset flange (see illustrations) and the end of the base fits snugly over this flange. Fittings are held to base with machine screws and stove bolts furnished with the base. Punching the holes in the ends of the base through which these screws are placed is done on the job by means of a punch and gauge furnished with the base which locates the hole exactly where it should be. No particular skill is required. (See illustrations on pages 71-72-73.)

Care should be used in erecting base to true levels and in the case of plastered-in types, base must be set with reference to thickness of plaster desired. Wedge out behind nailing flanges where necessary to increase the ground thickness.

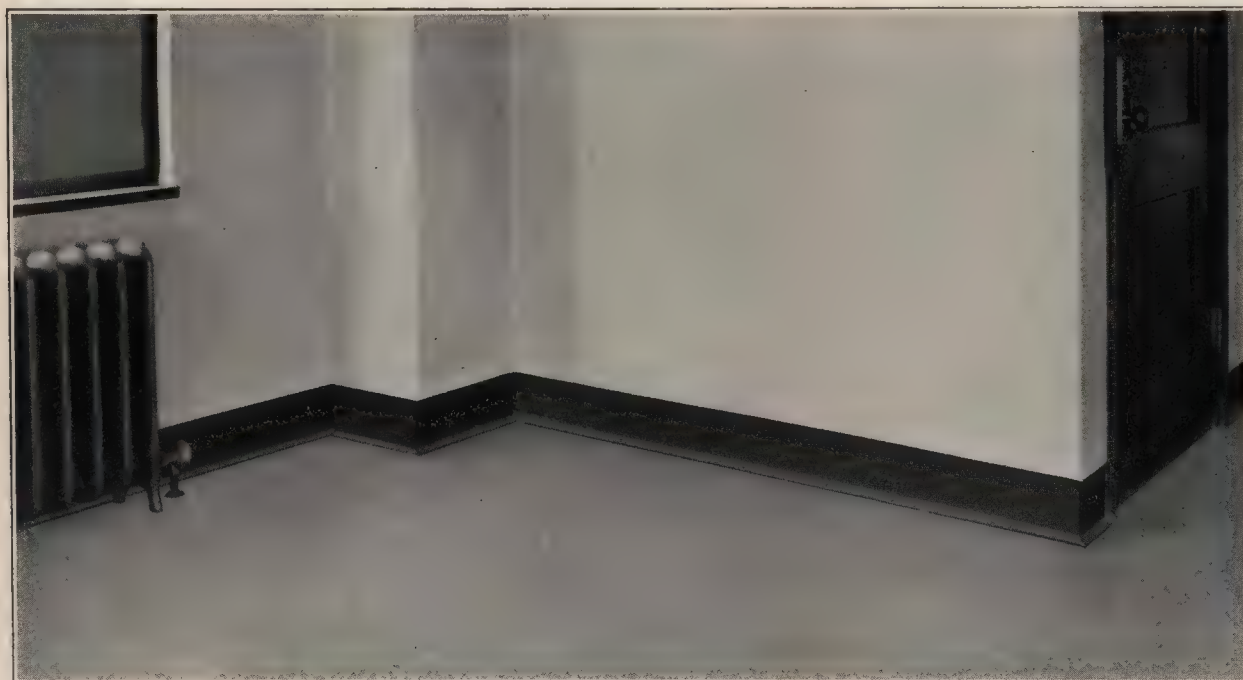
PROTECTION OF BASE

Those base boards erected before plastering should be covered during the plastering operation with building paper or some other effective means of catching the plaster droppings.



ST. MARY'S HOSPITAL, ST. LOUIS, MO.

Architects: Aegeter and Bailey, St. Louis, Mo. No. 302 used as Door Trim and Metal Base No. 202 used here.



UNION BANK AND TRUST CO., PHILADELPHIA, PA.

Architects: Heacock and Hokanson, Philadelphia. No. 202 Metal Base used here



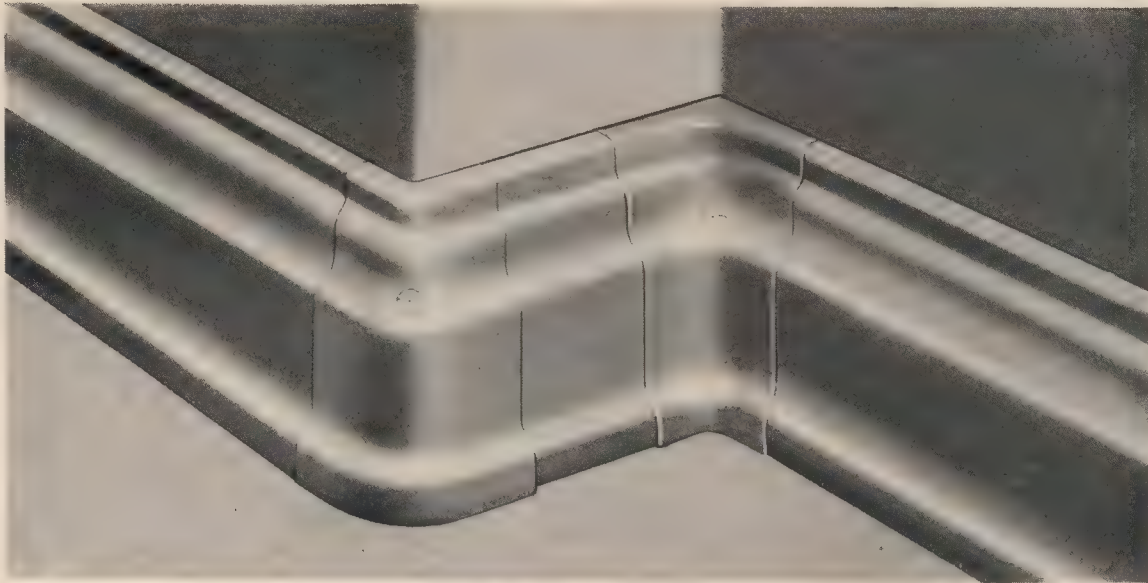
BATTLE CREEK SANITARIUM, BATTLE CREEK, MICH.

Architect: M. J. Morehouse, Chicago. Metal Base, Window Stools, Picture Mould, Bull Nose Beads, and Corner Beads used here.



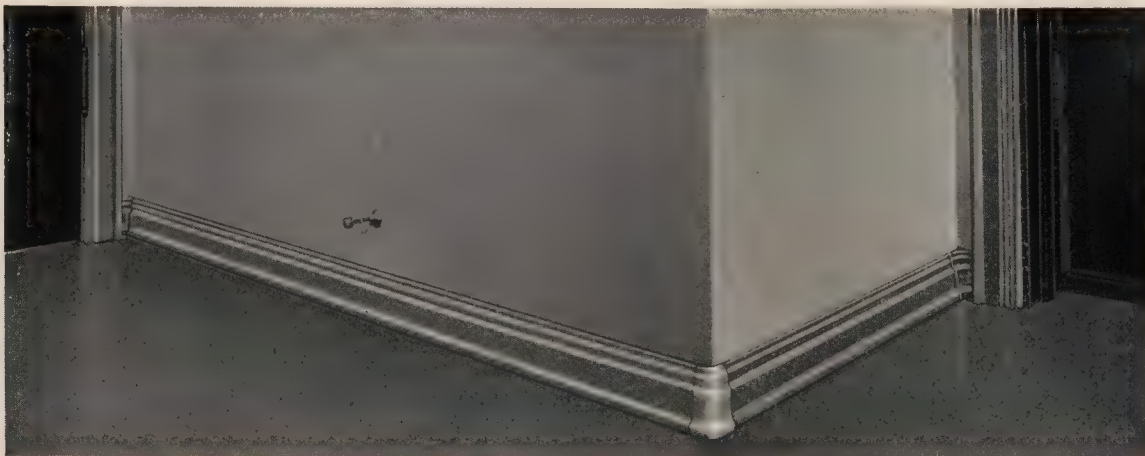
KELLOGG INN, BATTLE CREEK, MICH.

Architect: M. J. Morehouse, Chicago. Showing an 8-inch metal base decorated to resemble marble. No. 42 Base Screed at top and No. 43 Cove at bottom.



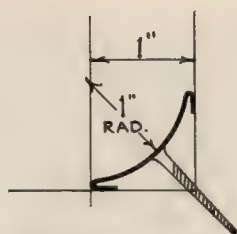
CLOSE UP DETAIL OF LAP CORNER FITTINGS FOR BASE NO. 210.

The photo illustrated above is a close up detail of an actual installation of No. 210 Moulding used as a base board and clearly shows the pleasing appearance of the corner fittings.

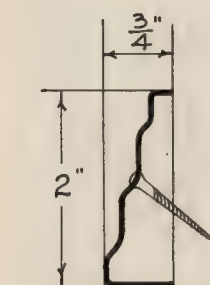


DETAIL SHOWING TYPICAL RUN OF BASE WITH FITTINGS

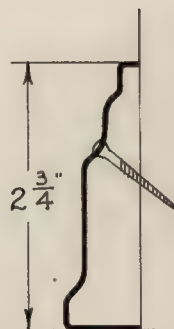
The photo illustrated above is from an actual installation of No. 210 Moulding used as a base and shows a typical run between corners. Note how the base terminates at doors *without plinths*.



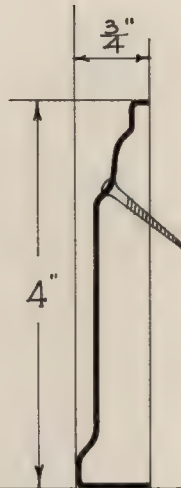
NO 43 COVE



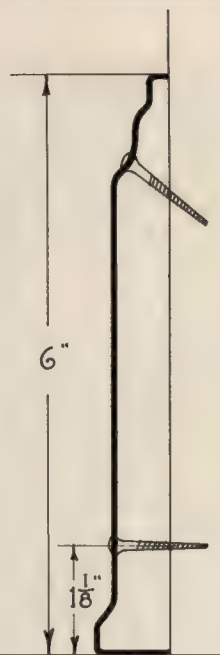
NO 209



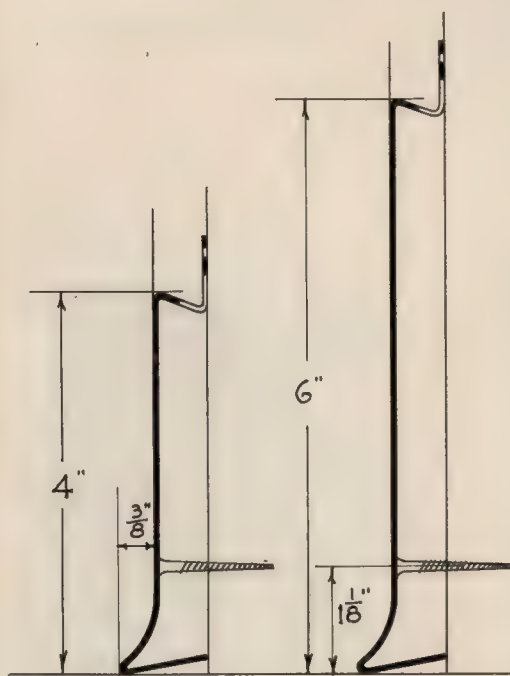
NO 210



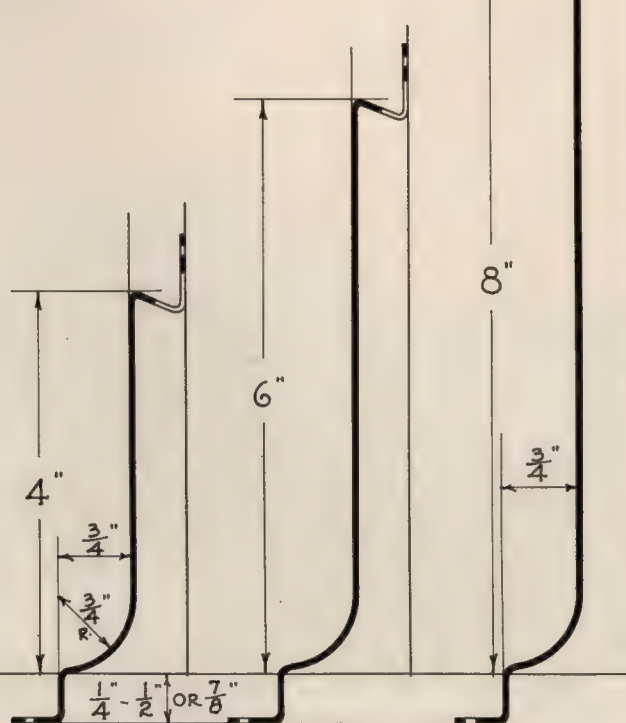
NO 211



NO 212

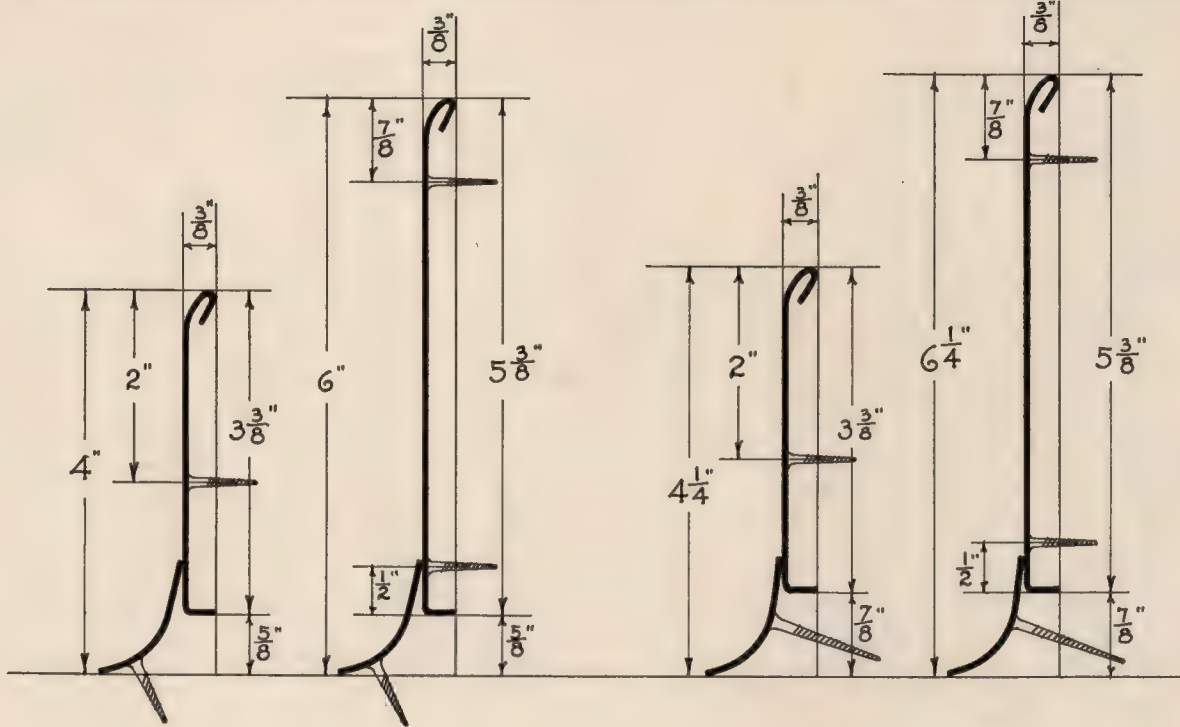


NO 201 BASE



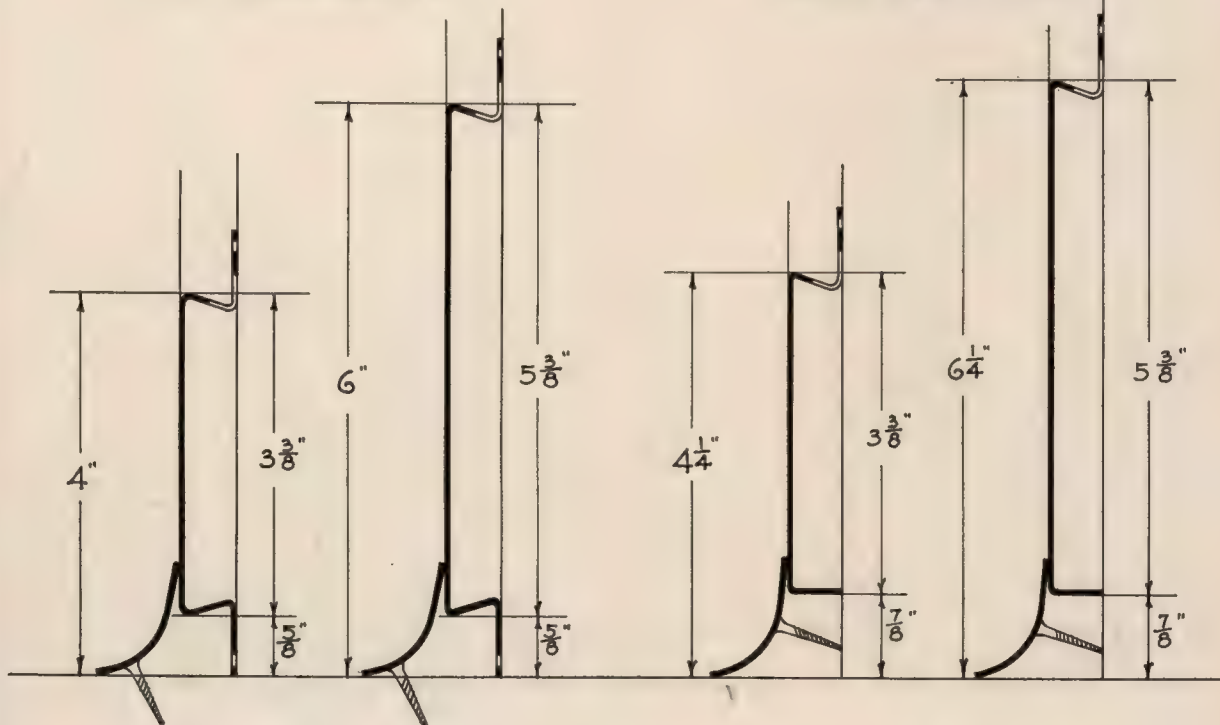
NO 202 BASE

HALF FULL SIZE PROFILES OF
KNAPP STANDARD METAL BASE BOARDS
FOR FURTHER DETAILS CONSULT FOLLOWING PAGES



No 204 BASE

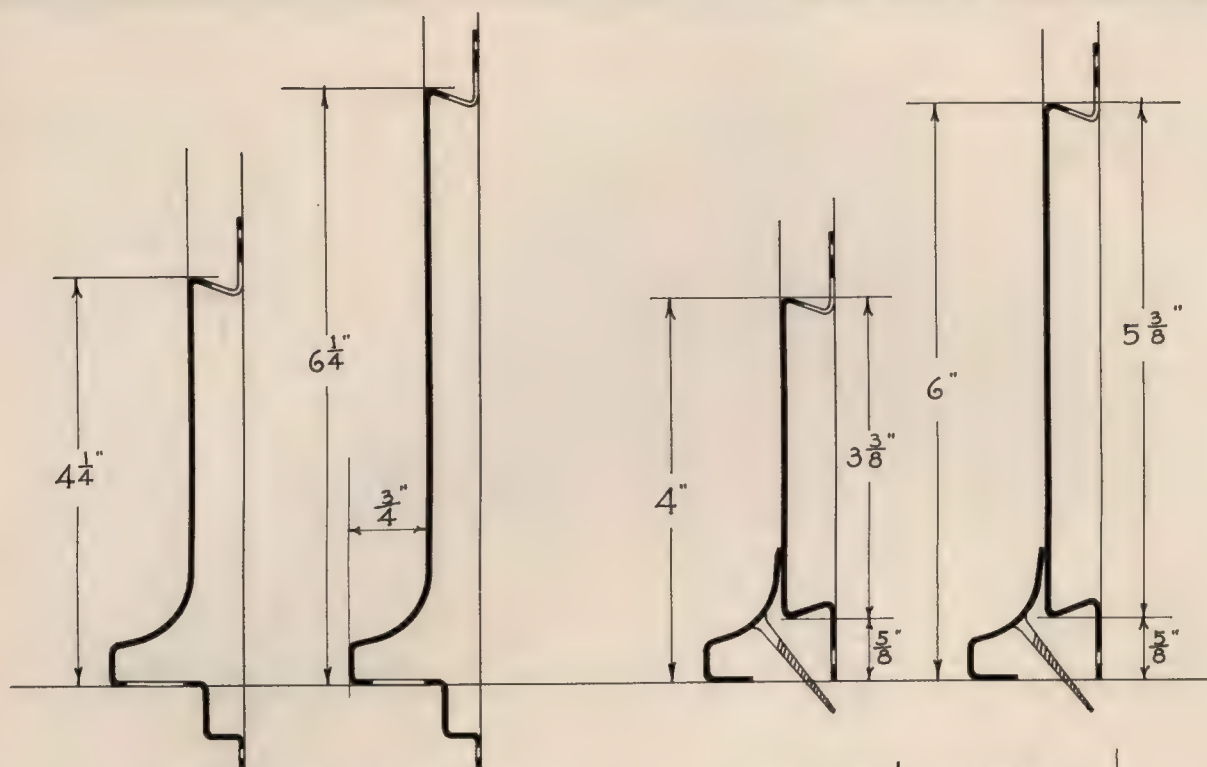
No 204 1/2 BASE



No 205 BASE

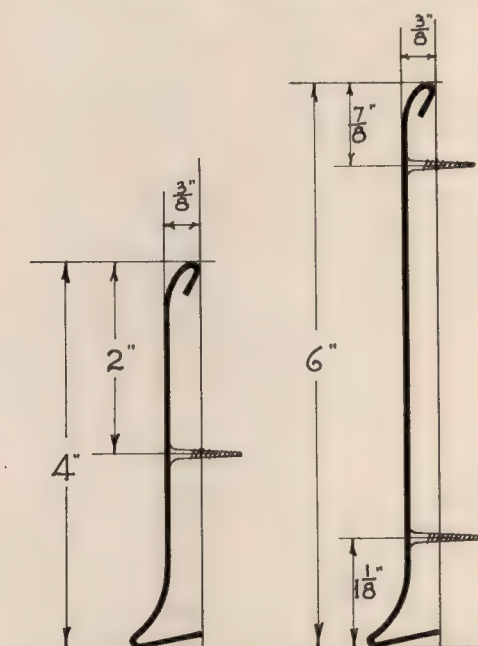
No 205 1/2 BASE

HALF FULL SIZE PROFILES OF
KNAPP STANDARD METAL BASE BOARDS
FOR FURTHER DETAILS CONSULT FOLLOWING PAGES

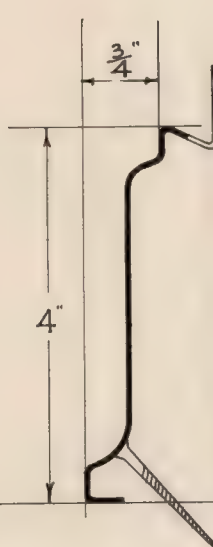


No 501 BASE

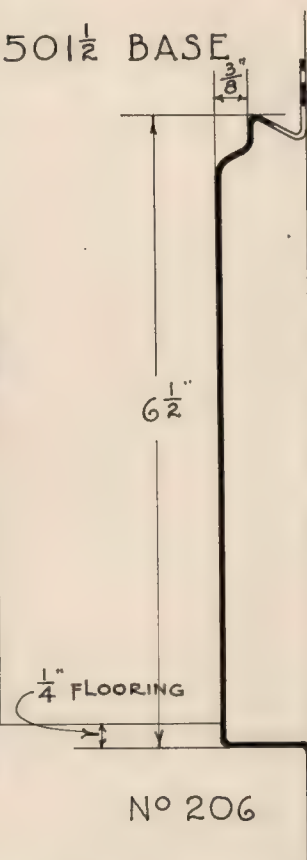
No 501 $\frac{1}{2}$ BASE



No 203 BASE



No 207



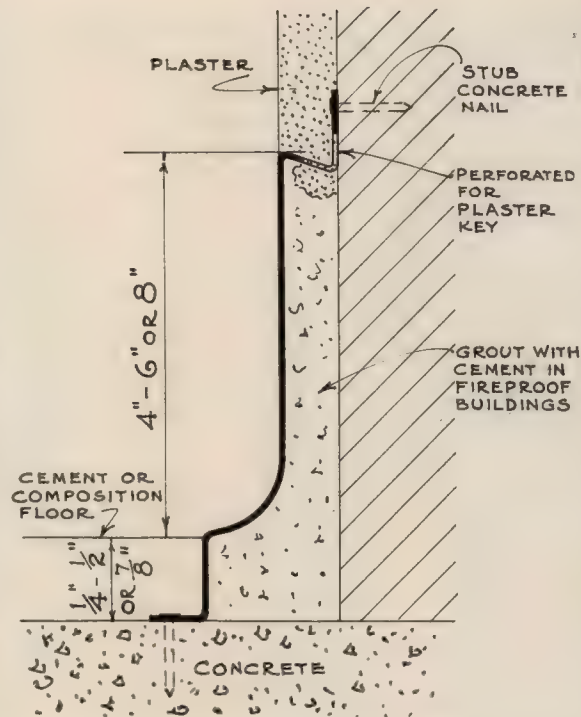
No 206

HALF FULL SIZE PROFILES OF
KNAPP STANDARD METAL BASE BOARDS
FOR FURTHER DETAILS CONSULT FOLLOWING PAGES

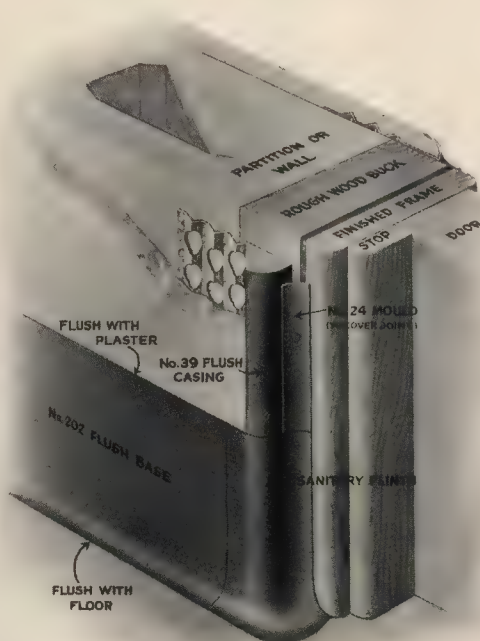
No. 202 FLUSH-WITH-PLASTER TYPE OF BASE

Standard Stock Length 10 Ft.

This type of base is furnished in 4 inch, 6 inch, and 8 inch heights and the standard gauge of metal used is 20 and 18, except for the 8 inch, which is made only in 16 gauge. On another page all the standard types of corner fittings will be found illustrated and described. The floor flange is made in three depths, $\frac{1}{4}$ inch, $\frac{1}{2}$ inch, and $\frac{3}{8}$ inch. It is important that the specification writer make note of this in his specifications. This is necessary for the manufacturer to know so that the proper floor flange will be furnished for the type of floor finish desired.



NO 202 BASE



The illustration to the left shows how the base, plinth, casing, and moulding are combined to make a complete installation. The plinths are so designed that they will adjust themselves to all Knapp standard flush-with-plaster casings whether they be quarter round or O. G. type.

A plinth is also made to be used with No. 202 Base and the quarter round casings in those cases where the shim mould is omitted.

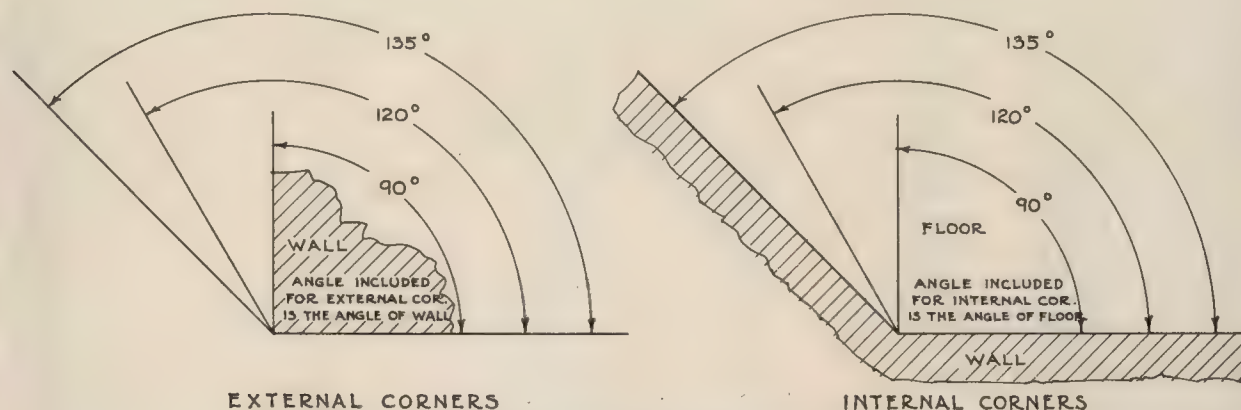
202 STYLE BASE
Showing Sanitary Plinth Fitting at the Door



No. 202 — 4-INCH BASE FITTINGS

- Pattern No. **84** —Internal square corner fitting.
 Pattern No. **97** —Internal $\frac{3}{4}$ inch radius corner fitting.
 Pattern No. **99** —Internal $1\frac{1}{2}$ inch radius corner fitting.
 Pattern No. **80** —External square corner fitting.
 Pattern No. **87** —External $\frac{3}{4}$ inch radius corner fitting.
 Pattern No. **15** —External $1\frac{1}{2}$ inch radius corner fitting.
 Pattern No. **94R**—Right hand end stop.
 Pattern No. **94L**—Left hand end stop.
 Pattern No. **25R**—Right hand universal plinth.
 Pattern No. **25L**—Left hand universal plinth.
 S. P.—Splice plate.
 Pattern No. **171L**—Left hand universal plinth filler for No. 26 mould.
 Pattern No. **171R**—Right hand universal plinth filler for No. 26 mould.
 Pattern No. **173L**—Left hand plinth for quarter round casing and No. 26 mould.
 Pattern No. **173R**—Right hand plinth for quarter round casing and No. 26 mould.
 Pattern No. **165R**—Right hand universal plinth used with cement base only.
 Pattern No. **165L**—Left hand universal plinth used with cement base only.
 Pattern No. **249R**—Right hand plinths for No. 34— $2\frac{1}{4}$ inch casing.
 Pattern No. **249L**—Left hand plinths for No. 34— $2\frac{1}{4}$ inch casing.
 Pattern No. **209** —External 135 degree angle fitting.
 Pattern No. **208** —Internal 135 degree angle fitting.
 Pattern No. **210** —External double corner (Octagon column). 2 inch chamfer.
 Pattern No. **206** —Internal 60 degree angle fitting.
 Pattern No. **207** —Internal 120 degree angle fitting.
 Pattern No. **291R**—Right hand plinth for No. 35— $3\frac{1}{4}$ inch casing.
 Pattern No. **291L**—Left hand plinth for No. 35— $3\frac{1}{4}$ inch casing.
 Pattern No. **106** — $2\frac{1}{2}$ inch radius special corner fitting.
 Pattern No. **304R**—Right hand plinth for use with quarter round casings without mould.
 Pattern No. **304L**—Left hand plinth for use with quarter round casings without mould.

(Patterns in Black figures are illustrated. Those in Light figures are not shown here.)

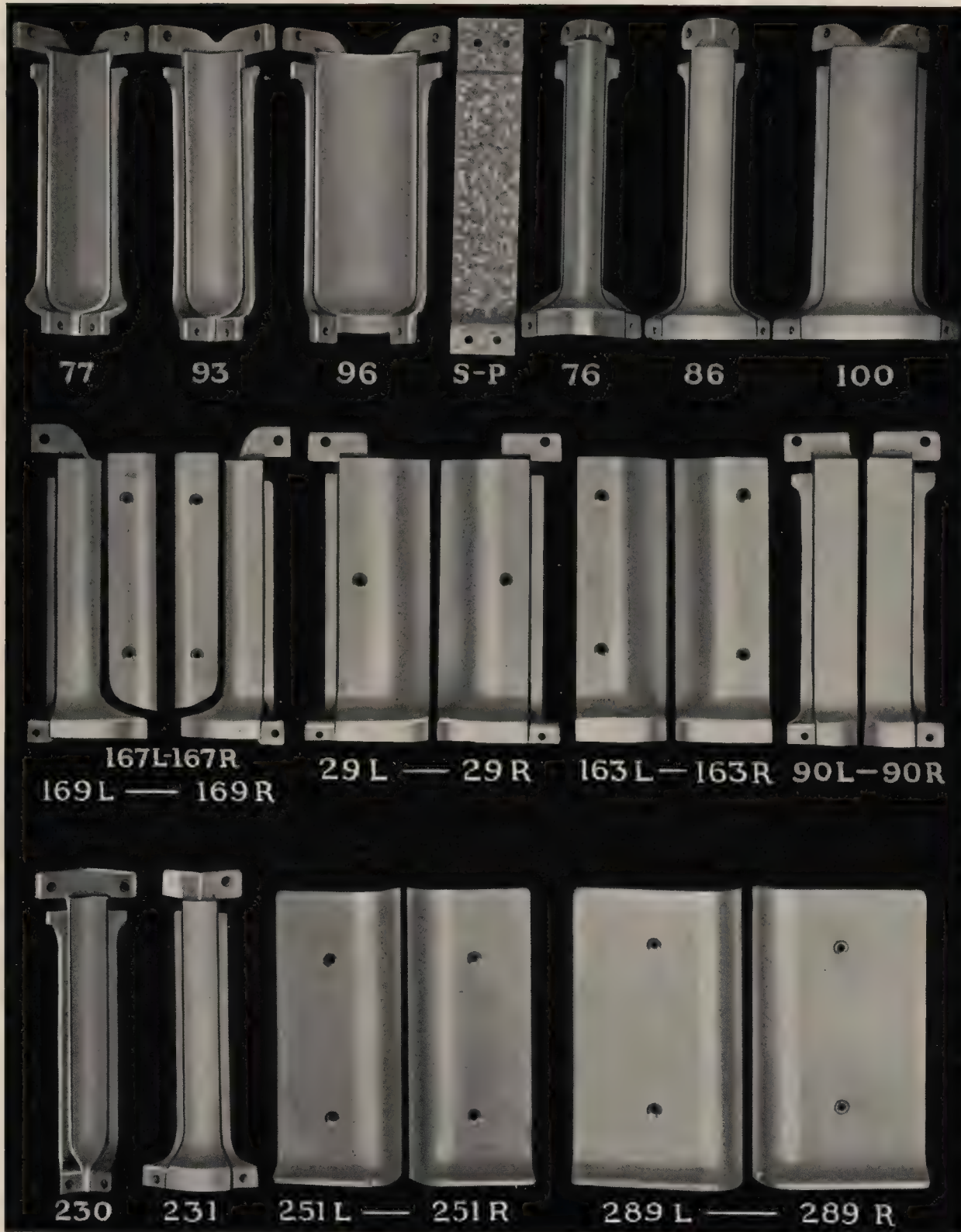


EXTERNAL CORNERS

INTERNAL CORNERS

DESIGNATION OF ANGLES FOR BASE CORNERS ETC

The above diagram gives the interpretation of wall or partition angles used in this handbook when referring to corner fittings for any style of base. When not otherwise mentioned the fittings are for 90° corners either external or internal.



No. 202 — 6-INCH BASE FITTINGS

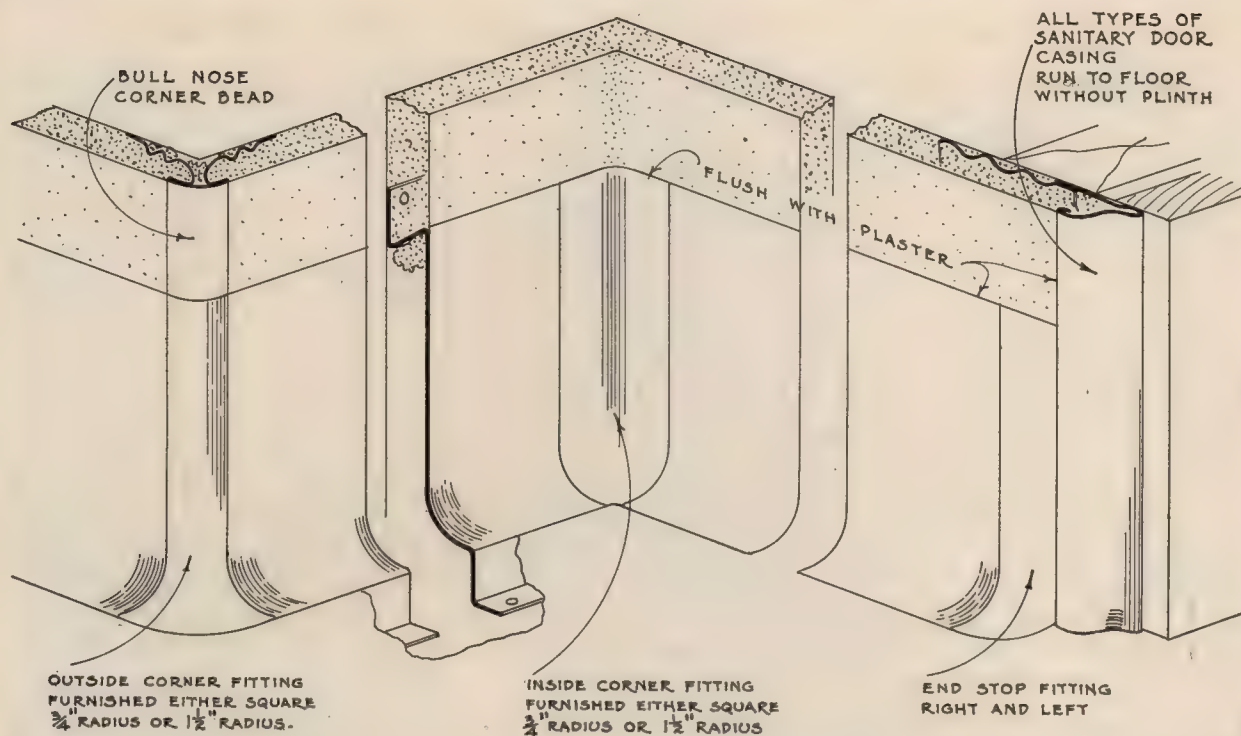
- Pattern No. **77** —Internal square corner fitting.
 Pattern No. **93** —Internal $\frac{3}{4}$ inch radius corner fitting.
 Pattern No. **96** —Internal $1\frac{1}{2}$ inch radius corner fitting.
 S. P.—Splice Plate.
 Pattern No. **76** —External square corner fitting.
 Pattern No. **86** —External $\frac{3}{4}$ inch radius corner fitting.
 Pattern No. **100** —External $1\frac{1}{2}$ inch radius corner fitting.
 Pattern No. **167L** —Left hand universal plinth filler for No. 26 mould.
 Pattern No. **167R** —Right hand universal plinth filler for No. 26 mould.
 Pattern No. **169L** —Left hand plinth for quarter round casing and No. 26 mould.
 Pattern No. **169R** —Right hand plinth for quarter round casing and No. 26 mould.
 Pattern No. **29L** —Left hand universal plinth.
 Pattern No. **29R** —Right hand universal plinth.
 Pattern No. **163L** —Left hand universal plinth used with cement base only.
 Pattern No. **163R** —Right hand universal plinth used with cement base only.
 Pattern No. **90L** —Left hand end stop.
 Pattern No. **90R** —Right hand end stop.
 Pattern No. **230** —Internal $\frac{3}{4}$ inch radius 135 degree angle fitting.
 Pattern No. **231** —External $\frac{3}{4}$ inch radius 135 degree angle fitting.
 Pattern No. **251L** —Left hand plinth for No. 34— $2\frac{1}{4}$ inch casing.
 Pattern No. **251R** —Right hand plinth for No. 34— $2\frac{1}{4}$ inch casing.
 Pattern No. **289L** —Left hand plinth for No. 35— $3\frac{1}{4}$ inch casing.
 Pattern No. **289R** —Right hand plinth for No. 35— $3\frac{1}{4}$ inch casing.
 Pattern No. **305R** —Right hand plinth for use with quarter round casings without mould.
 Pattern No. **305L** —Left hand plinth for use with quarter round casings without mould.



No. 202 — 8-INCH, 16-GAUGE BASE FITTINGS

- Pattern No. **243** —Internal square corner fitting.
 Pattern No. **242** —External $\frac{3}{4}$ inch radius corner fitting.
 Pattern No. **253** —Internal 135 degree angle fitting.
 Pattern No. **244L** —Left hand universal plinth for all quarter round type casings.
 Pattern No. **244R** —Right hand universal plinth for all quarter round type casings.

(Patterns in Black figures are illustrated. Those in Light figures are not shown here.)

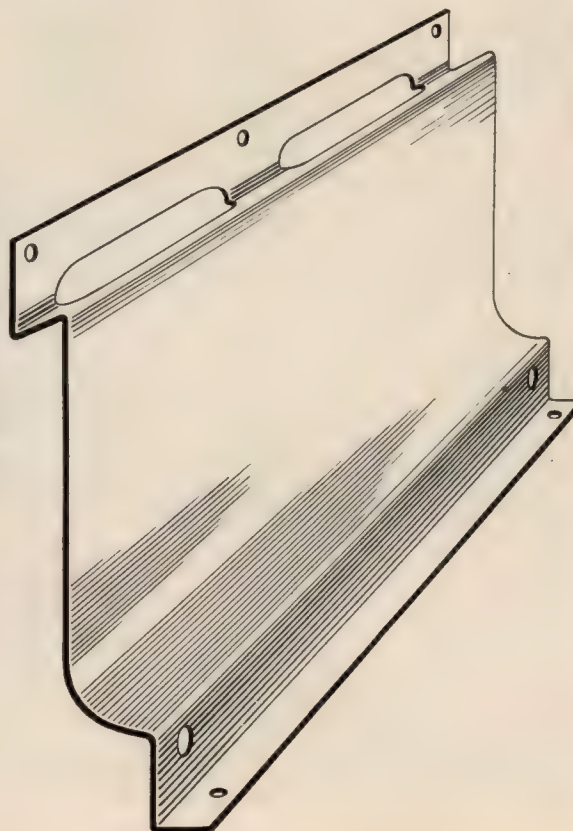


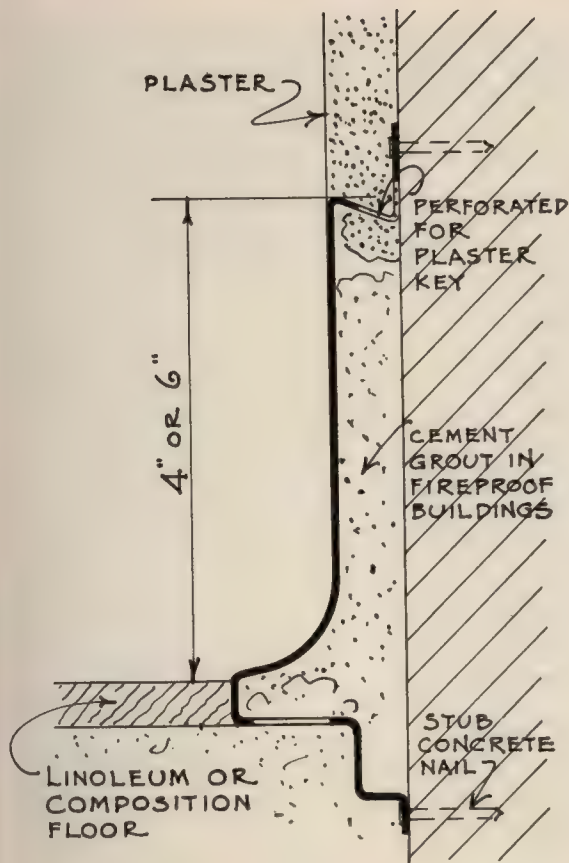
ISOMETRIC VIEW OF BASE NO 202
SHOWING TYPICAL FITTINGS

SLOTTED BASE FLANGE

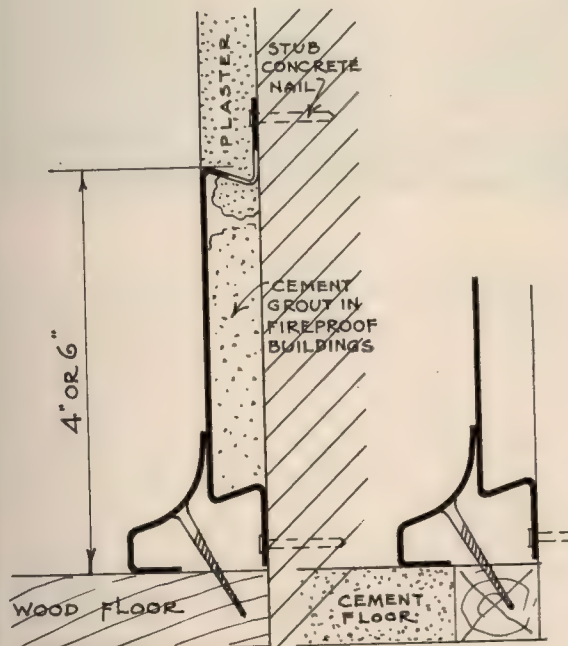
For the purpose of making grouting easier (when grouting behind base is desired) we have standardized the slot principle in the flange of all flush-with-plaster types of base. These slots are $2\frac{1}{2}$ inches long and the bridge is 1 inch wide in the clear; thus permitting of easy grouting and yet giving rigidity to the flange which is so essential to a good installation. Grout behind a flush base is very desirable. It makes for solidity; it raises the fireproof quality; and minimizes any tendency to crack the plaster. Grouting is easily poured through these slots when mixed to the proper flowing consistency.

The two holes shown on the vertical side of the lower flange are required for fastening corner fitting to base. These holes are punched at time of installation.

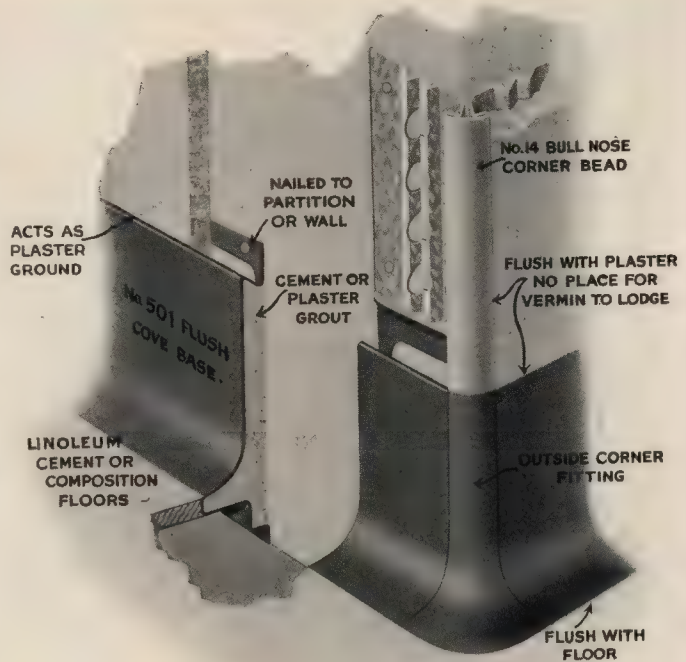




NO 501 BASE



NO 501½ BASE



NO. 501 FLUSH METAL COVE BASE

Style 501 Base is the same in general contour as Base Style 202, except for the difference in the lower flange, which is designed in Style 501 to be attached to the wall or partition instead of to the floor.

Style 501½ is made up of the top member of Base No. 205 and a lower cove member, which matches the lower part of Base No. 501. This can be used on either a wood floor or masonry floor as illustrated by the details on the left.

NO. 501½ CORNER FITTINGS

Pattern No. 281—Internal square.

Pattern No. 282—External square.





No. 501 — 4-INCH BASE FITTINGS

- Pattern No. 21 — Internal square corner fitting.
 Pattern No. 46 — Internal $\frac{3}{4}$ inch radius corner fitting.
 Pattern No. 12 — Internal $1\frac{1}{2}$ inch radius corner fitting.
 S.P. — Splice Plate (not illustrated).
 Pattern No. 17 — External square corner fitting.
 Pattern No. 11 — External $\frac{3}{4}$ inch radius corner fitting.
 Pattern No. 31 — External $1\frac{1}{2}$ inch radius corner fitting.
 Pattern No. 44L — Left hand end stop.
 Pattern No. 44R — Right hand end stop.
 Pattern No. 13 — Splice Plate.
 Pattern No. 69 — External $\frac{3}{4}$ inch radius 135 degree angle fitting.
 Pattern No. 70 — Internal $\frac{3}{4}$ inch radius 135 degree angle fitting.
 Pattern No. 245L — Left hand universal plinth for all quarter round type casings with No. 24 mould and all O. G. type casings.
 Pattern No. 245R — Right hand universal plinth for all quarter round type casings with No. 24 mould and all O. G. type casings.
 Pattern No. 66 — External $2\frac{1}{2}$ inch radius 90 degree angle fitting.
 Pattern No. 64 — External $3\frac{1}{2}$ inch radius 90 degree angle fitting.



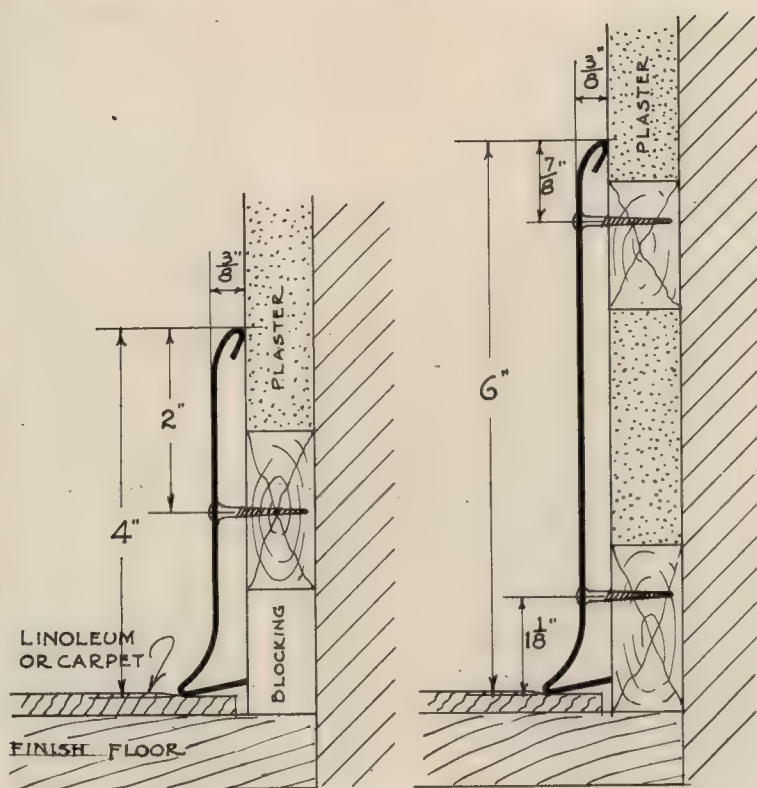
No. 501 — 6-INCH BASE FITTINGS

Pattern No. **35** —Internal square corner fitting.
 Pattern No. **50** —Internal $\frac{3}{4}$ inch radius corner fitting.
 Pattern No. **27** —Internal $1\frac{1}{2}$ inch radius corner fitting.
 Pattern No. **47** —External square corner fitting.
 Pattern No. **34** —External $\frac{3}{4}$ inch radius corner fitting.
 Pattern No. **30** —External $1\frac{1}{2}$ inch radius corner fitting.

Pattern No. **48L**—Left hand end stop.
 Pattern No. **48R**—Right hand end stop.

Pattern No. **56L**—Left hand plinth for No. 37 and for all quarter round nose casings.
 Pattern No. **56R**—Right hand plinth for No. 37 and for all quarter round nose casings.

Pattern No. **28** —Splice Plate.
 Pattern No. **89** —Internal square 135 degree angle fitting.
 Pattern No. **88** —External square 135 degree angle fitting.



No. 203 BASE

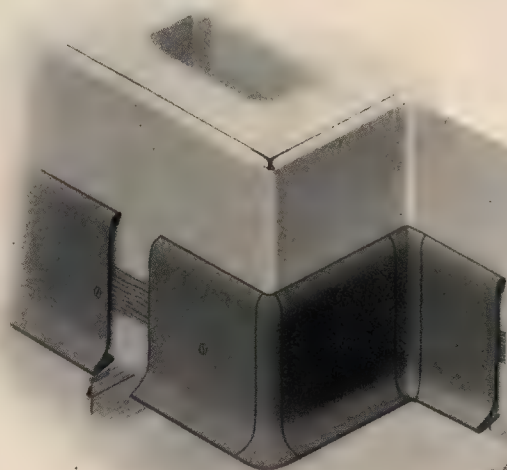
*Standard Stock
Length 10 Feet*

This type of base is generally used on floors with linoleum or carpet covering. It functions as a good edge-binder.

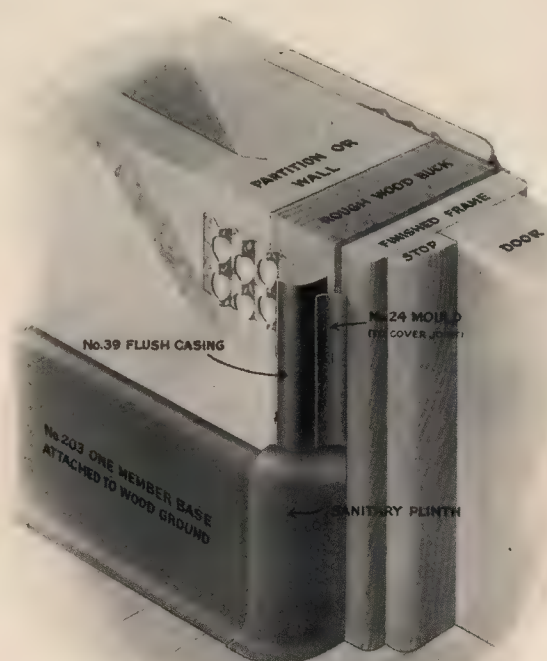
It is also adaptable to plain wood and cement floors.

NO 203 BASE

For the 6 inch height of Base two grounds are essential—see detail above.



ILLUSTRATING CORNER FITTINGS

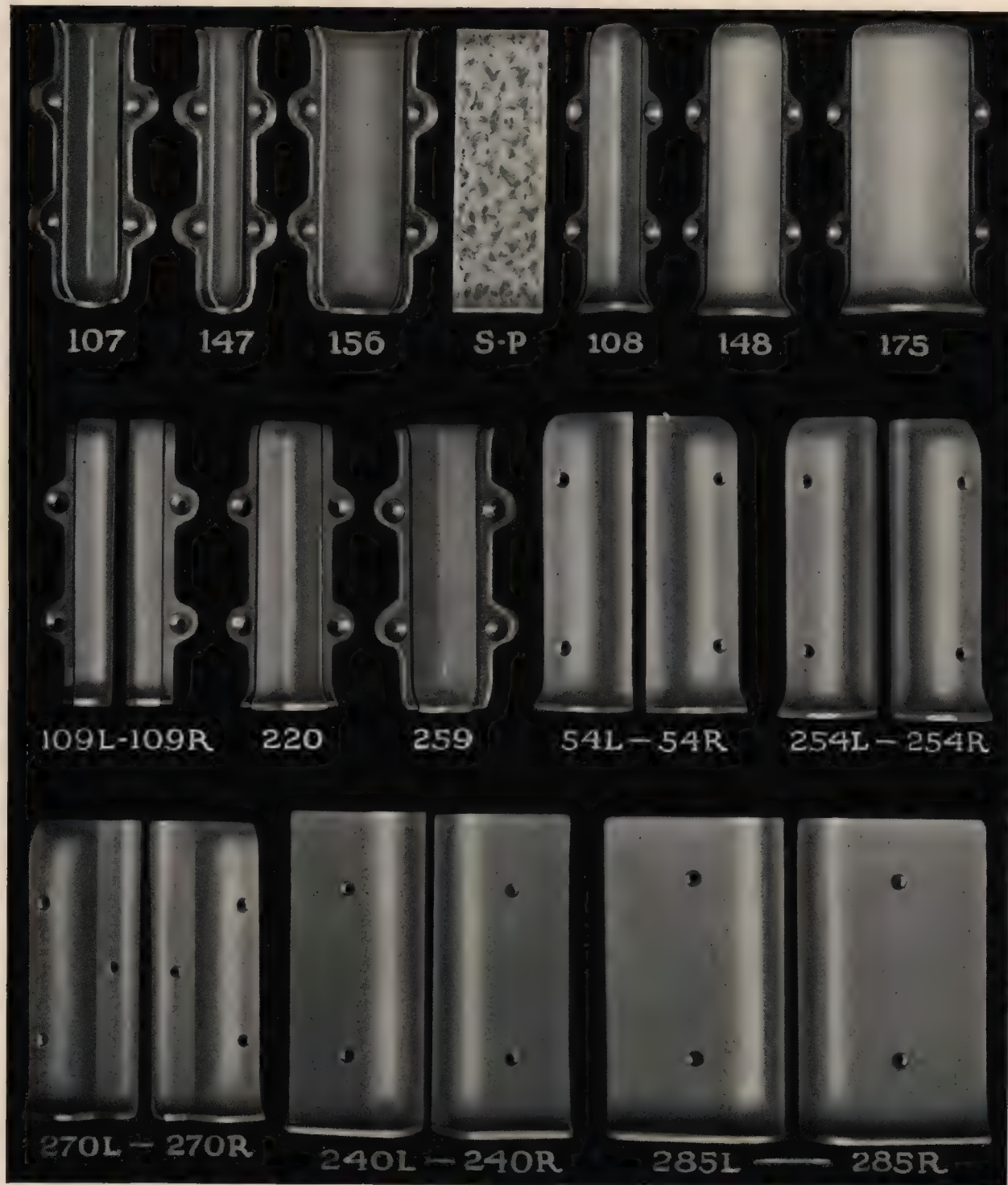


ILLUSTRATING SANITARY PLINTH AT DOOR



No. 203 — 4-INCH BASE FITTINGS

- Pattern No. **14** — Internal square corner fitting.
 Pattern No. **146** — Internal $\frac{3}{4}$ inch radius corner fitting.
 Pattern No. **113** — Internal $1\frac{1}{2}$ inch radius corner fitting.
 S. P. — Splice plate.
 Pattern No. **16** — External square corner fitting.
 Pattern No. **143** — External $\frac{3}{4}$ inch radius corner fitting.
 Pattern No. **130** — External $1\frac{1}{2}$ inch radius corner fitting.
 Pattern No. **18L** — Left hand end stop.
 Pattern No. **18R** — Right hand end stop.
 Pattern No. **261** — External square 135 degree angle fitting.
 Pattern No. **260** — Internal square 135 degree angle fitting.
 Pattern No. **144L** — Left hand plinth for O. G. type casings.
 Pattern No. **144R** — Right hand plinth for O. G. type casings.
 Pattern No. **51L** — Left hand universal plinth.
 Pattern No. **51R** — Right hand universal plinth.
 Pattern No. **272L** — Left hand plinth for quarter round nose casings with No. 26 mould.
 Pattern No. **272R** — Right hand plinth for quarter round nose casings with No. 26 mould.
 Pattern No. **238L** — Left hand plinth for No. 34- $2\frac{1}{4}$ inch casing.
 Pattern No. **238R** — Right hand plinth for No. 34- $2\frac{1}{4}$ inch casing.
 Pattern No. **287L** — Left hand plinth for No. 35- $3\frac{1}{4}$ inch casing.
 Pattern No. **287R** — Right hand plinth for No. 35- $3\frac{1}{4}$ inch casing.



This type of base, viz.: No. 203, 6 inch and fittings, was used throughout on the Colonial National Bank and Office Building, Roanoke, Virginia. Frye and Stone, Architects, Roanoke,

Virginia. The contractor stated through the Roanoke representative that the cost of erecting this base was only six cents per foot. (See photo illustration on page 53.)

No. 203 — 6-INCH BASE FITTINGS

Pattern No. **107** —Internal square corner fitting.
 Pattern No. **147** —Internal $\frac{3}{4}$ inch radius corner fitting.
 Pattern No. **156** —Internal $1\frac{1}{2}$ inch radius corner fitting.
S. P. —Splice plate.
 Pattern No. **108** —External square corner fitting.
 Pattern No. **148** —External $\frac{3}{4}$ inch radius corner fitting.
 Pattern No. **175** —External $1\frac{1}{2}$ inch radius corner fitting.

Pattern No. **109L**—Left hand end stop.
 Pattern No. **109R**—Right hand end stop.

Pattern No. **220** —External square corner fitting 135 degree angle.
 Pattern No. **259** —Internal square corner fitting 135 degree angle.

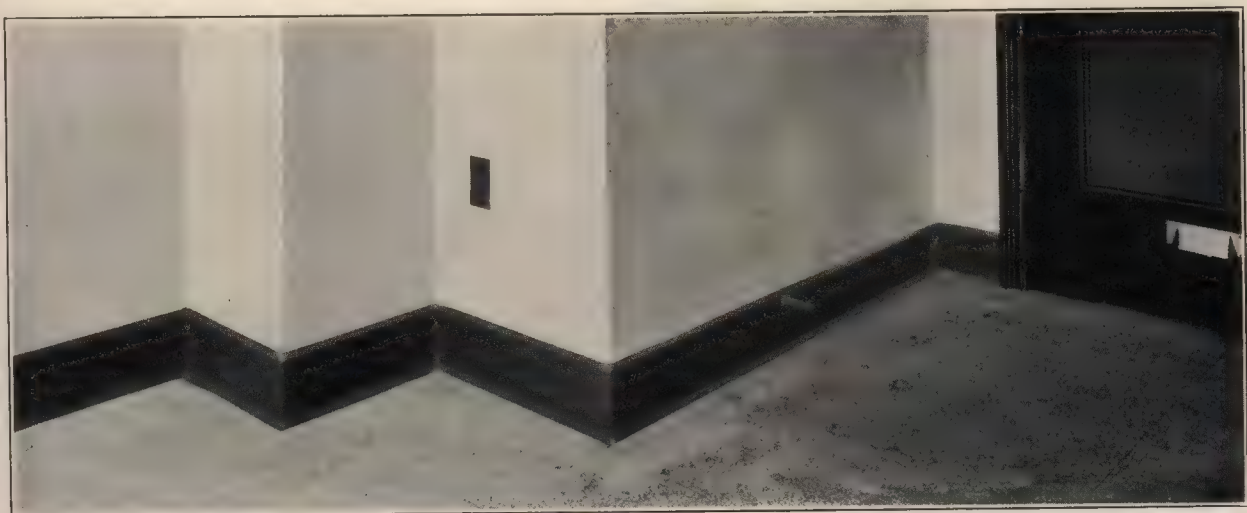
Pattern No. **54L**—Left hand universal plinth.
 Pattern No. **54R**—Right hand universal plinth.

Pattern No. **254L**—Left hand plinth for use with O. G. nose casings only.
 Pattern No. **254R**—Right hand plinth for use with O. G. nose casings only.

Pattern No. **270L**—Left hand plinth for quarter round nose casings and No. 26 mould.
 Pattern No. **270R**—Right hand plinth for quarter round nose casings and No. 26 mould.

Pattern No. **240L**—Left hand plinth for No. 34- $2\frac{1}{4}$ inch casing.
 Pattern No. **240R**—Right hand plinth for No. 34- $2\frac{1}{4}$ inch casing.

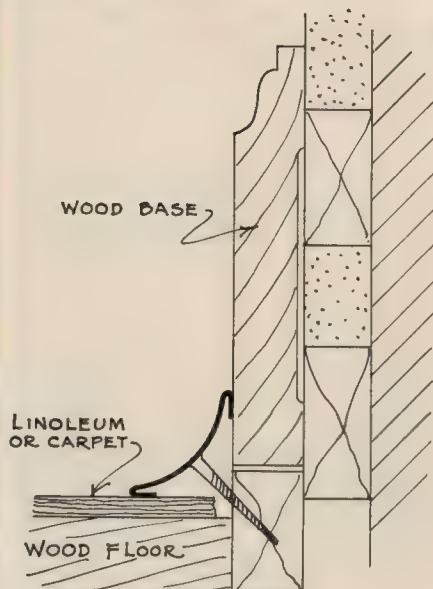
Pattern No. **285L**—Left hand plinth for No. 35- $3\frac{1}{4}$ inch casing.
 Pattern No. **285R**—Right hand plinth for No. 35- $3\frac{1}{4}$ inch casing.



COLONIAL NATIONAL BANK BUILDING, ROANOKE, VA.

Architects: Frye and Stone, Roanoke, Va. No. 203, 6-inch Base used here.

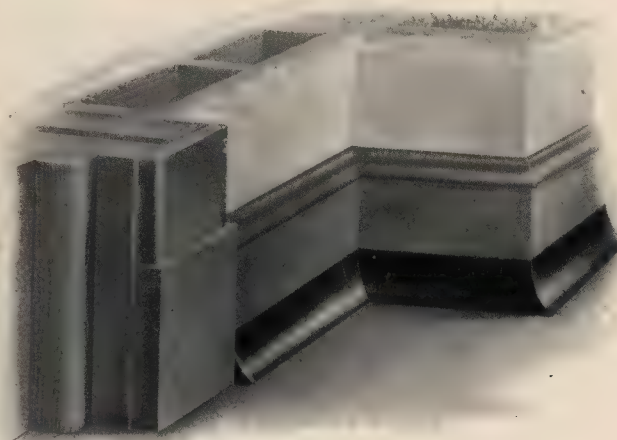
No. 43 — SANITARY METAL COVE



NO 43 COVE

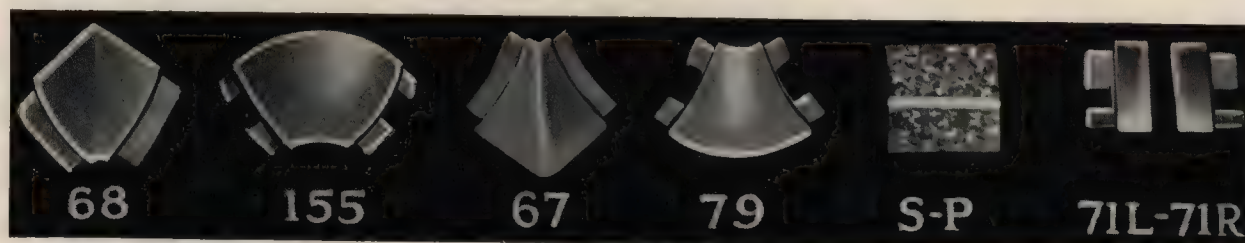
Standard
stock
length
10 feet

24 gauge
or can be
made in
brass



DETAIL OF NO. 43 COVE AND FITTINGS

Recommended for remodeling old buildings. Can be used with wood floors, linoleum, carpet or cement. (Note: on cement floors a ground for fastening must be provided.)



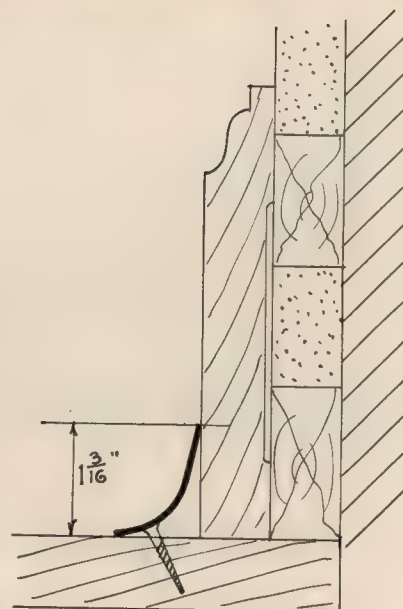
No. 43 — COVE FITTINGS

- Pattern No. **68** — Internal square corner fitting.
 Pattern No. **155** — Internal $1\frac{1}{2}$ inch radius corner fitting.
 Pattern No. **67** — External square corner fitting.
 Pattern No. **79** — External $\frac{3}{4}$ inch radius corner fitting.
 S. P. — Splice plate.
 Pattern No. **71L** — Left hand end stop.
 Pattern No. **71R** — Right hand end stop.
 Pattern No. **78** — Internal $\frac{3}{4}$ inch radius corner fitting.

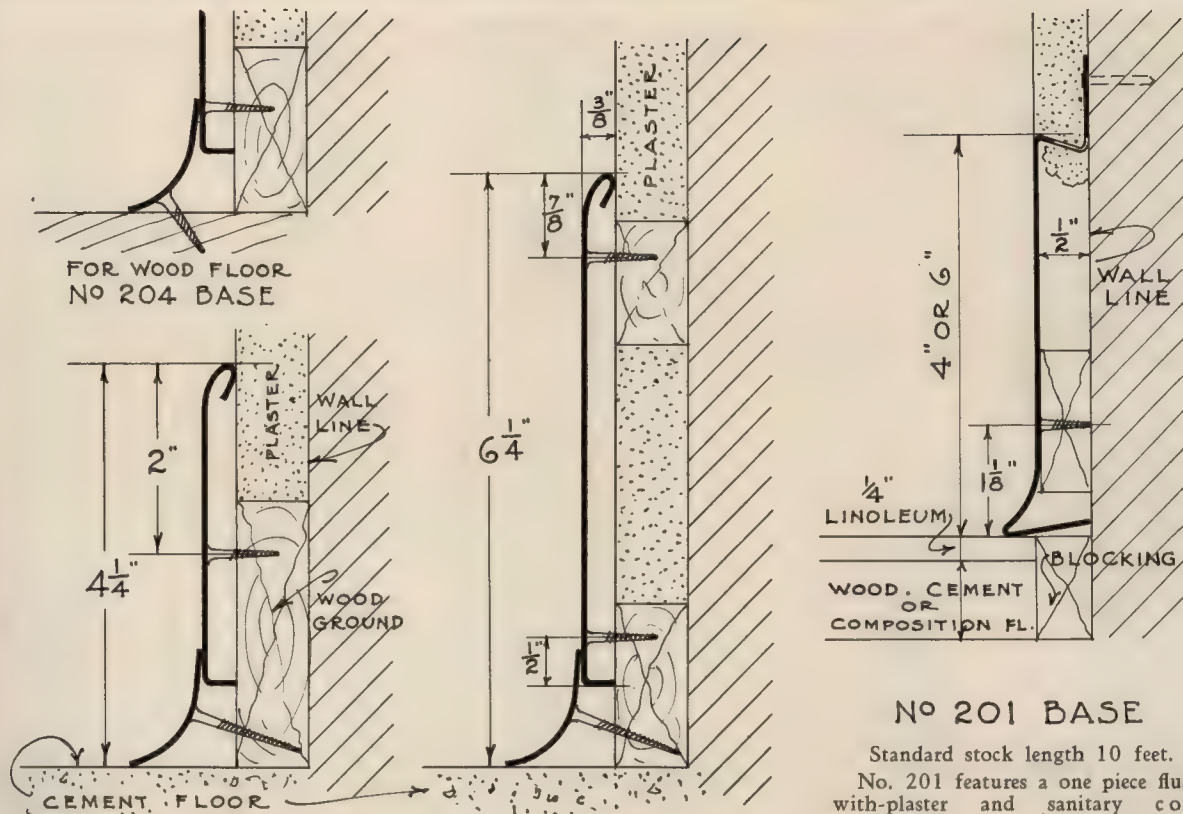
(Patterns in Black figures are illustrated. Those in Light figures are not shown here.)

(Right)

Lower member of No. 205 Base used as a cove mould. The standard corner fittings of the lower member of No. 205 Base can be used with this cove—see page 61.



LOWER MEMBER OF BASE
NO 205 USED AS COVE ONLY



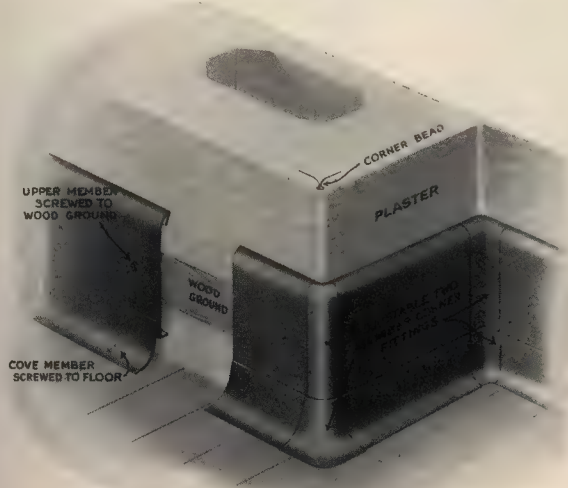
NO 204½ BASE

Styles 204 and 204½ Base

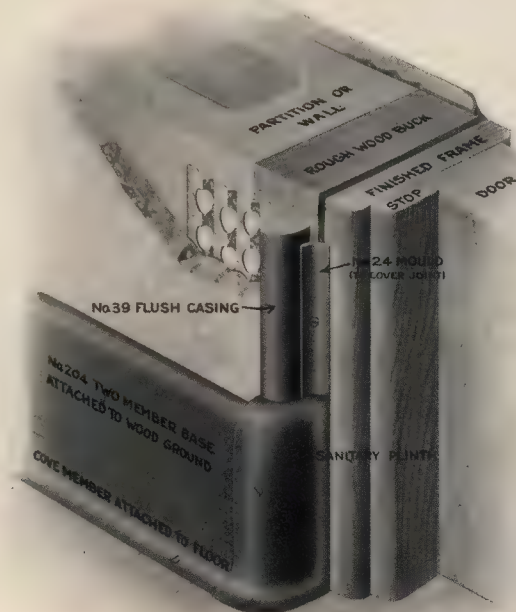
Standard Stock Length 10 feet.

This type of base is recommended for wood joist construction where shrinkage or settlement is liable to be a factor. It can also be used with cement floors as shown in detail. Where cove is screwed to floor, base is known as No. 204. On 6 inch height two grounds must be furnished. The upper member must be erected so as to leave at least a 3/8 inch overlap between the upper and lower members. The lower right illustration shows

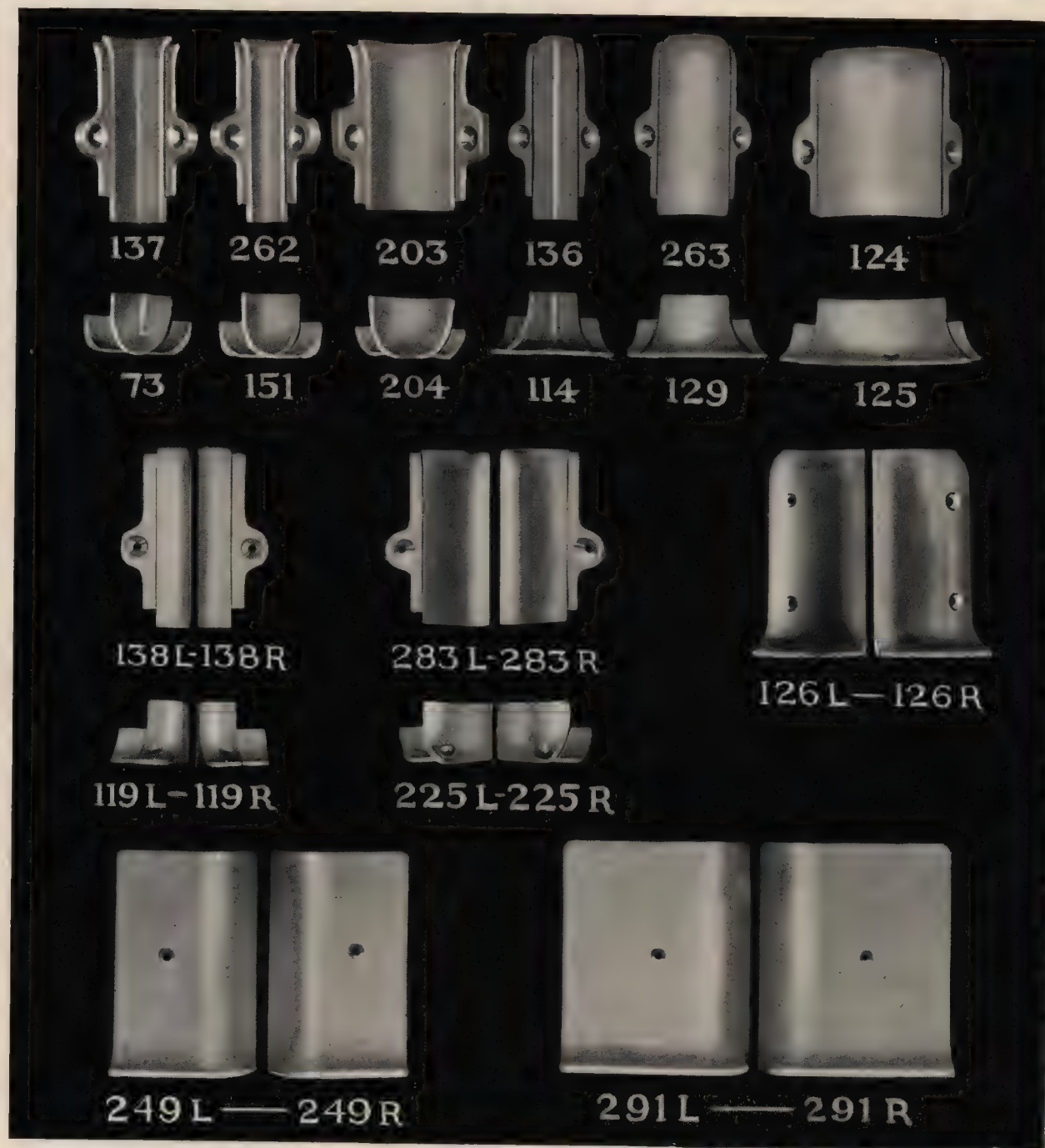
sanitary plinth fitting at the door in conjunction with the casing and mould. The lower left illustration shows the adjustable cove member and corner fittings. These bases are erected after plastering.



SHOWING NO. 204 BASE CORNER FITTINGS



SHOWING NO. 204 BASE PLINTH AT DOOR



These fittings are made of the best grades of grey cast iron, sand blasted after leaving the moulds and machined at the factory ready to be attached. They are dipped in a protective coating of paint.

Pattern No. 137	—Internal square corner fitting.....	top member
Pattern No. 73	—Internal square corner fitting.....	bottom member
Pattern No. 262	—Internal ¾ inch radius corner fitting.....	top member
Pattern No. 151	—Internal ¾ inch radius corner fitting.....	bottom member
Pattern No. 203	—Internal 1½ inch radius corner fitting.....	top member
Pattern No. 204	—Internal 1½ inch radius corner fitting.....	bottom member
S. P. —Splice plate (not illustrated).		
Pattern No. 136	—External square corner fitting.....	top member
Pattern No. 114	—External square corner fitting.....	bottom member
Pattern No. 263	—External ¾ inch radius corner fitting.....	top member
Pattern No. 129	—External ¾ inch radius corner fitting.....	bottom member
Pattern No. 124	—External 1½ inch radius corner fitting.....	top member
Pattern No. 125	—External 1½ inch radius corner fitting.....	bottom member
Pattern No. 138L	—Left hand end stop.....	top member
Pattern No. 138R	—Right hand end stop.....	top member
Pattern No. 119L	—Left hand end stop.....	bottom member
Pattern No. 119R	—Right hand end stop.....	bottom member
Pattern No. 283L	—Left hand end stop for No. 43 vertical.....	top member
Pattern No. 283R	—Right hand end stop for No. 43 vertical.....	top member
Pattern No. 225L	—Left hand end stop for No. 43 vertical.....	bottom member
Pattern No. 225R	—Right hand end stop for No. 43 vertical.....	bottom member
Pattern No. 126L	—Left hand universal plinth.	
Pattern No. 126R	—Right hand universal plinth.	
Pattern No. 249L	—Left hand plinth for No. 34-2¼ inch casing.	
Pattern No. 249R	—Right hand plinth for No. 34-2¼ inch casing.	
Pattern No. 291L	—Left hand plinth for No. 35-3¼ inch casing.	
Pattern No. 291R	—Right hand plinth for No. 35-3¼ inch casing.	
Pattern No. 318L	—Left hand plinth for use with quarter round nose casings and No. 26 mould.	
Pattern No. 318R	—Right hand plinth for use with quarter round nose casings and No. 26 mould.	

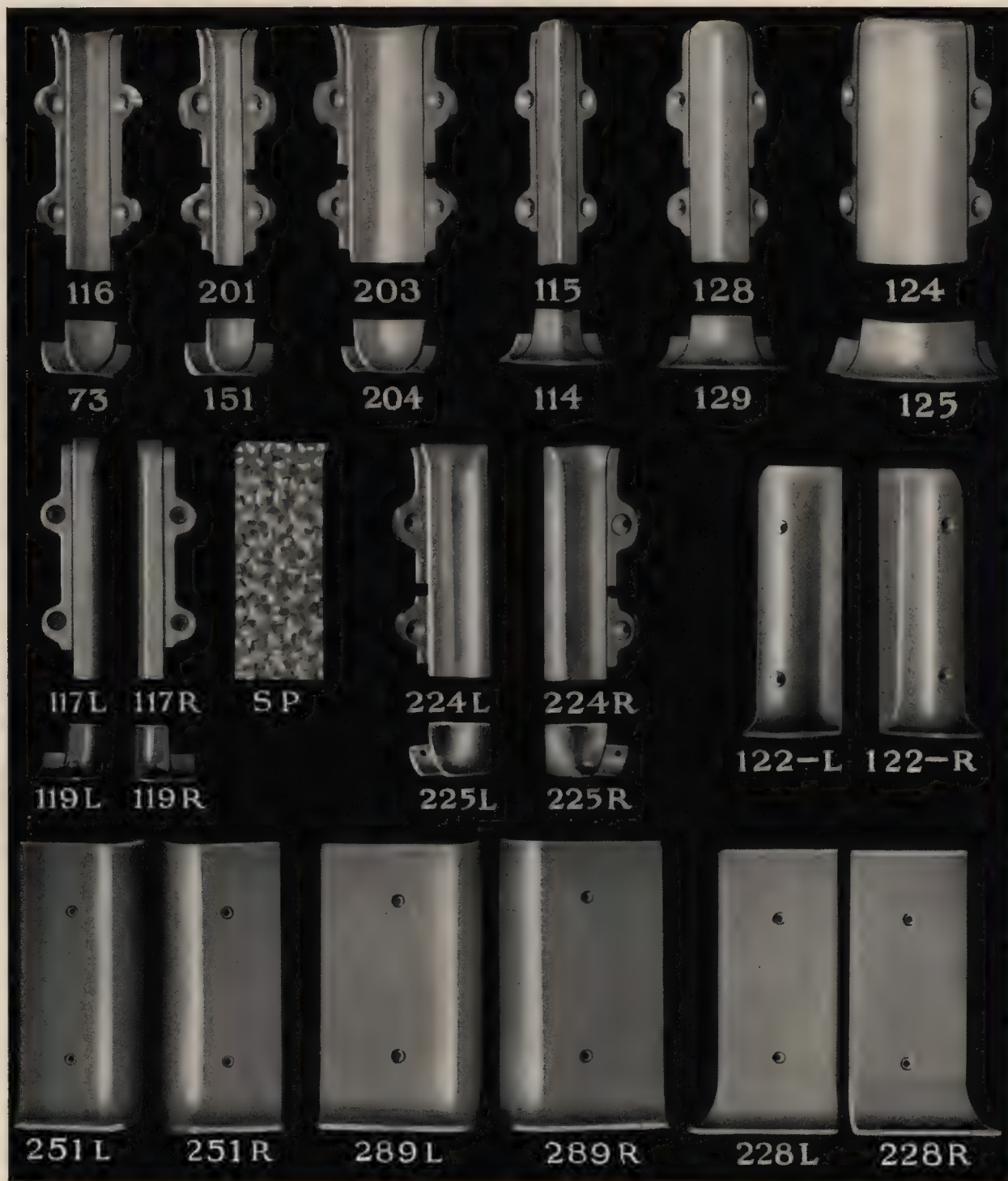
(Patterns in Black figures are illustrated. Those in Light figures are not shown here.)



DORCHESTER HIGH SCHOOL FOR BOYS

Architect: Harrison H. Atwood, Boston, Mass.

Illustrating No. 204 6 inch Base with Cast Plinth Blocks. No. 25 Mould is here used as a trim and Dado Mould.



Nos. 204 AND 204½ — 6-INCH, TWO-MEMBER BASE FITTINGS

Pattern No. 116	—Internal square corner fitting.....	top member
Pattern No. 73	—Internal square corner fitting.....	bottom member
Pattern No. 201	—Internal ¾ inch radius corner fitting.....	top member
Pattern No. 151	—Internal ¾ inch radius corner fitting.....	bottom member
Pattern No. 203	—Internal 1½ inch radius corner fitting.....	top member
Pattern No. 204	—Internal 1½ inch radius corner fitting.....	bottom member
Pattern No. 115	—External square corner fitting.....	top member
Pattern No. 114	—External square corner fitting.....	bottom member
Pattern No. 128	—External ¾ inch radius corner fitting.....	top member
Pattern No. 129	—External ¾ inch radius corner fitting.....	bottom member
Pattern No. 124	—External 1½ inch radius corner fitting.....	top member
Pattern No. 125	—External 1½ inch radius corner fitting.....	bottom member
Pattern No. 117L	—Left hand end stop.....	top member
Pattern No. 117R	—Right hand end stop.....	top member
Pattern No. 119L	—Left hand end stop.....	bottom member
Pattern No. 119R	—Right hand end stop.....	bottom member

S. P. — Splice plate.

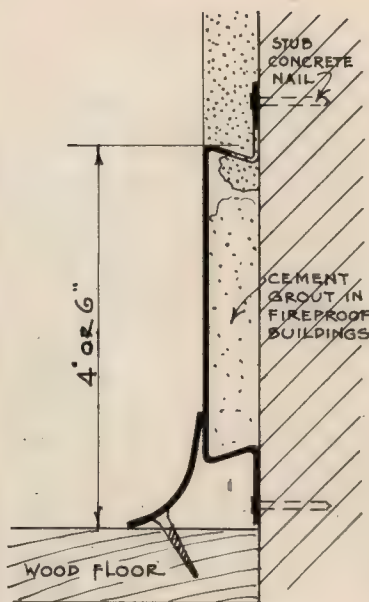
Pattern No. 224L	—Left hand end stop for No. 43 vertical.....	top member
Pattern No. 224R	—Right hand end stop for No. 43 vertical.....	bottom member
Pattern No. 225L	—Left hand end stop for No. 43 vertical.....	top member
Pattern No. 225R	—Right hand end stop for No. 43 vertical.....	bottom member
Pattern No. 122L	—Left hand universal plinth.	
Pattern No. 122R	—Right hand universal plinth.	
Pattern No. 251L	—Left hand plinth for No. 34-2¼ inch casing.	
Pattern No. 251R	—Right hand plinth for No. 34-2¼ inch casing.	
Pattern No. 289L	—Left hand plinth for No. 35-3¼ inch casing.	
Pattern No. 289R	—Right hand plinth for No. 35-3¼ inch casing.	
Pattern No. 228L	—Left hand plinth block, size 6½x2¾x⅝ for use with No. 25 mould.	
Pattern No. 228R	—Right hand plinth block, size 6½x2¾x⅝ for use with No. 25 mould.	
Pattern No. 319L	—Left hand plinth for use with quarter round nose casings and No. 26 mould.	
Pattern No. 319R	—Right hand plinth for use with quarter round nose casings and No. 26 mould.	

(Patterns in Black figures are illustrated. Those in Light figures are not shown here.)

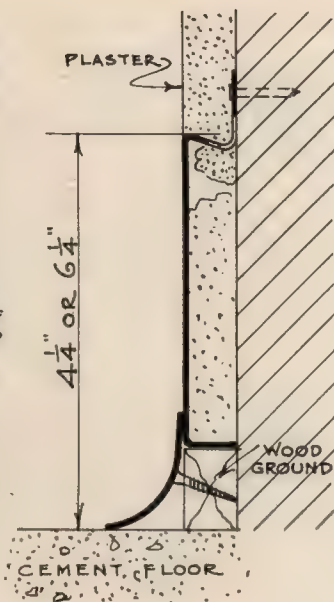


HYDE PARK HIGH SCHOOL, HYDE PARK, MASS.

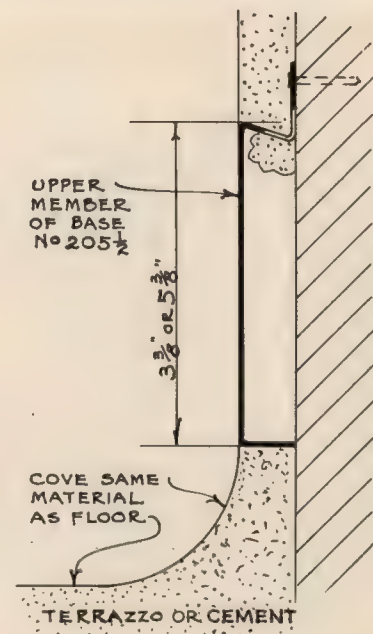
Architects: McLaughlin & Burr, Boston, Mass. Knapp No. 204 6-inch Base, No. 304 Window Stool, No. 303 Chalk Trough, No. 25 Blackboard Mould, No. 43 Cove, No. 604 Bullnose Bead.



No. 205 BASE



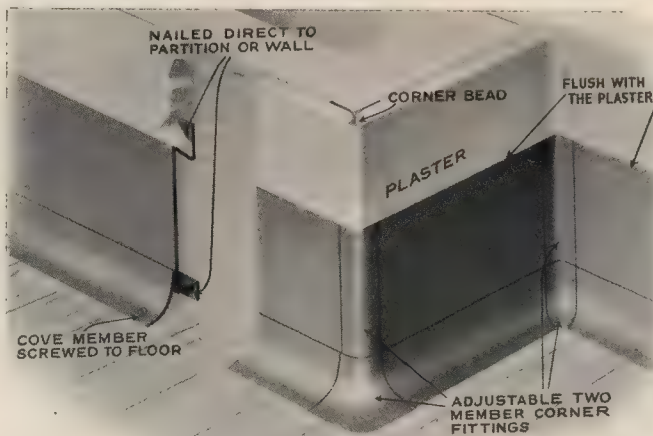
No. 205½ BASE


No. 205½ BASE
USED WITH FLOOR COVE

No. 205 — TWO-MEMBER BASE

Standard Stock Length 10 ft.

This base has the same flush-with-plaster feature as No. 202 but in addition, has an adjustable lower cove member which allows for an automatic regulation of shrinkage or settlement in the floor. This type of base is especially recommended for wood floor, joist construction. It will likewise adapt itself where the floor is covered with linoleum. This type of base can also be used in conjunction with cement or composition floors but where the cove member is screwed to a ground instead of to the floor it is known as No. 205½, (see profile detail above). The upper member of No. 205½ Base can also be used in conjunction with a floor cove formed out of terrazzo or cement, as shown in the accompanying profile detail.



It must be noted that the upper member of either type of base is erected before plastering, and furnishes a ground for same. Care must be taken to erect it so as to permit an adjustable overlap of at least 3/8 inch between the upper and lower members.

STYLE 205 BASE
Showing Adjustable Cove Member and Corner Fittings



Nos. 205 AND 205½ — 4-INCH TWO-MEMBER BASE FITTINGS

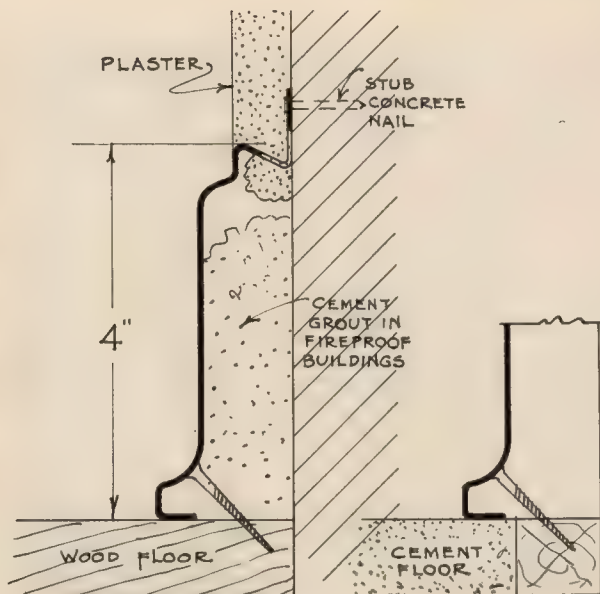
Pattern No. 176	—Internal square corner fitting.....	top member
Pattern No. 73	—Internal square corner fitting.....	bottom member
Pattern No. 162	—Internal ¾ inch radius corner fitting.....	top member
Pattern No. 151	—Internal ¾ inch radius corner fitting.....	bottom member
Pattern No. 197	—Internal 1½ inch radius corner fitting.....	top member
Pattern No. 198	—Internal 1½ inch radius corner fitting.....	bottom member
S. P.	—Splice plate (not illustrated).	
Pattern No. 177	—External square corner fitting.....	top member
Pattern No. 114	—External square corner fitting.....	bottom member
Pattern No. 161	—External ¾ inch radius corner fitting.....	top member
Pattern No. 152	—External ¾ inch radius corner fitting.....	bottom member
Pattern No. 199	—External 1½ inch radius corner fitting.....	top member
Pattern No. 200	—External 1½ inch radius corner fitting.....	bottom member
Pattern No. 211L	—Left hand end stop.....	top member
Pattern No. 211R	—Right hand end stop.....	top member
Pattern No. 212L	—Left hand end stop.....	bottom member
Pattern No. 212R	—Right hand end stop.....	bottom member
Pattern No. 178L	—Left hand universal plinth.....	top member
Pattern No. 178R	—Right hand universal plinth.....	top member
Pattern No. 150L	—Left hand universal plinth.....	bottom member
Pattern No. 150R	—Right hand universal plinth.....	bottom member
Pattern No. 256L	—Left hand plinth for quarter round nose casing in conjunction with No. 26 mould.....	top member
Pattern No. 256R	—Right hand plinth for quarter round nose casing in conjunction with No. 26 mould.....	top member
Pattern No. 257L	—Left hand plinth for quarter round nose casing in conjunction with No. 26 mould.....	bottom member
Pattern No. 257R	—Right hand plinth for quarter round nose casing in conjunction with No. 26 mould.....	bottom member
Pattern No. 282	—External square fitting lower member, No. 501½ base.	
Pattern No. 281	—Internal square fitting lower member No. 501½ base.	



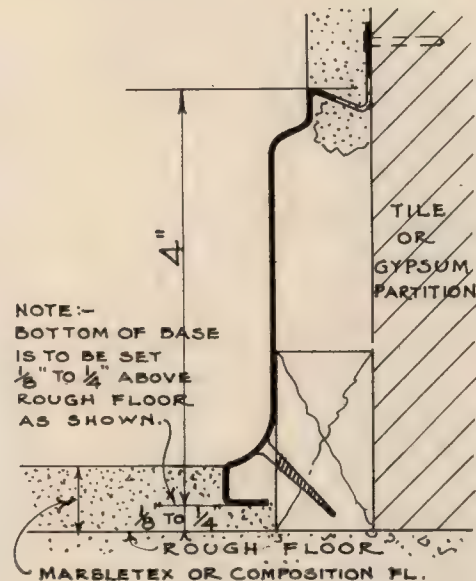
No. 205 AND 205½ — 6-INCH BASE FITTINGS

Pattern No. 157	—Internal square corner fitting.....	top member
Pattern No. 73	—Internal square corner fitting.....	bottom member
Pattern No. 153	—Internal ¾ inch radius corner fitting.....	top member
Pattern No. 151	—Internal ¾ inch radius corner fitting.....	bottom member
Pattern No. 234	—Internal 1½ inch radius corner fitting.....	top member
Pattern No. 198	—Internal 1½ inch radius corner fitting.....	bottom member
S. P.	—Splice plate. (not illustrated).	
Pattern No. 158	—External square corner fitting.....	top member
Pattern No. 114	—External square corner fitting.....	bottom member
Pattern No. 154	—External ¾ inch radius corner fitting.....	top member
Pattern No. 152	—External ¾ inch radius corner fitting.....	bottom member
Pattern No. 235	—External 1½ inch radius corner fitting.....	top member
Pattern No. 200	—External 1½ inch radius corner fitting.....	bottom member
Pattern No. 214L	—Left hand end stop.....	top member
Pattern No. 214R	—Right hand end stop.....	top member
Pattern No. 212L	—Left hand end stop.....	top member
Pattern No. 212R	—Right hand end stop.....	top member
Pattern No. 149L	—Left hand universal plinth.....	bottom member
Pattern No. 149R	—Right hand universal plinth.....	bottom member
Pattern No. 150L	—Left hand universal plinth.....	top member
Pattern No. 150R	—Right hand universal plinth.....	top member
Pattern No. 269L	—Left hand plinth for quarter round nose casing and No. 26 mould.....	bottom member
Pattern No. 269R	—Right hand plinth for quarter round nose casing and No. 26 mould.....	bottom member
Pattern No. 257L	—Left hand plinth for quarter round nose casing and No. 26 mould.....	top member
Pattern No. 257R	—Right hand plinth for quarter round nose casing and No. 26 mould.....	top member
Pattern No. 282	—External square for No. 501½ base.....	bottom member
Pattern No. 281	—Internal square for No. 501½ base.....	bottom member

No. 207 — 4-INCH, 20- OR 18-GAUGE BASE AND FITTINGS



No 207 BASE



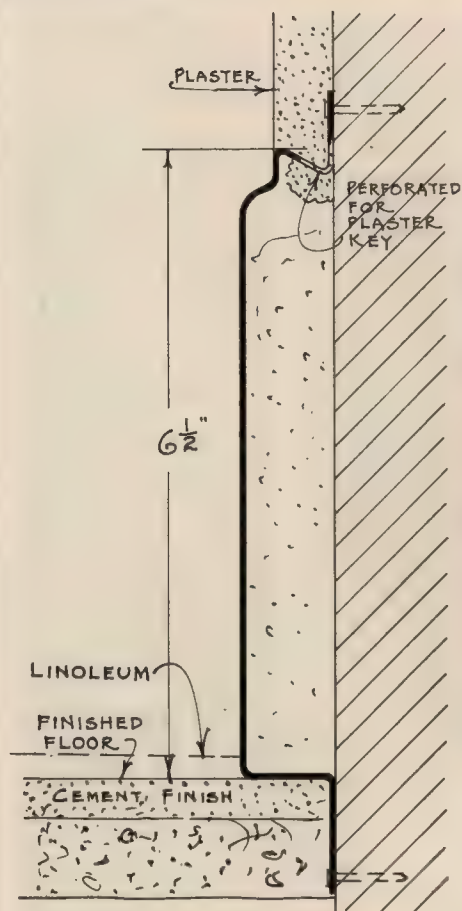
No 207 BASE
IN CONNECTION WITH
COMPOSITION FLOORS

No. 207 Base illustrated above differs from the other types of plastered-in base boards, in that it projects beyond the face of the plaster. This is standard only in the 4 inch height and with square inside and outside corner fittings. It is applied before plastering and temporary blocking is placed under the lower edge until finished floor is in place.

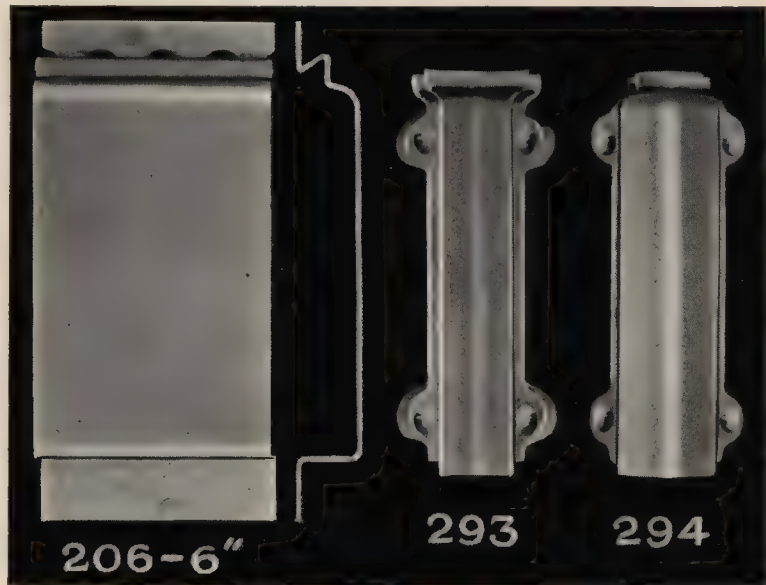


PHOTO AND CONTOUR OF NO. 207 BASE AND FITTINGS

Pattern No. 301—Internal square corner fitting.
Pattern No. 302—External square corner fitting.
S. P.—Splice plate.



No. 206—6-INCH, 18-GAUGE BASE AND FITTINGS

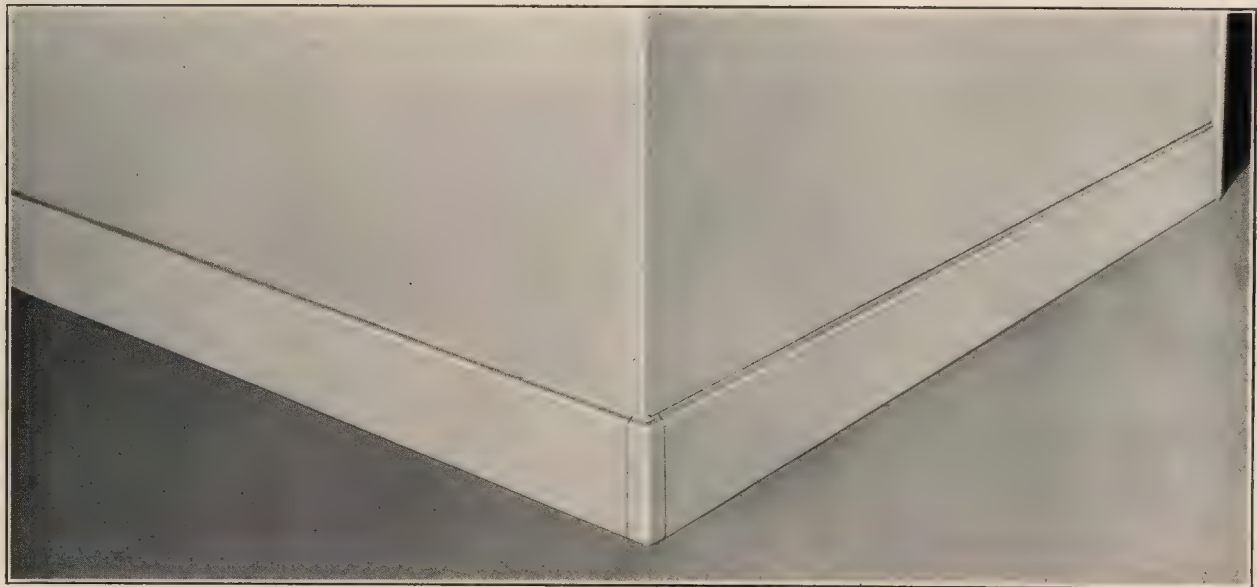


Pattern No. 293—Internal square corner fitting.

Pattern No. 294—External square corner fitting.

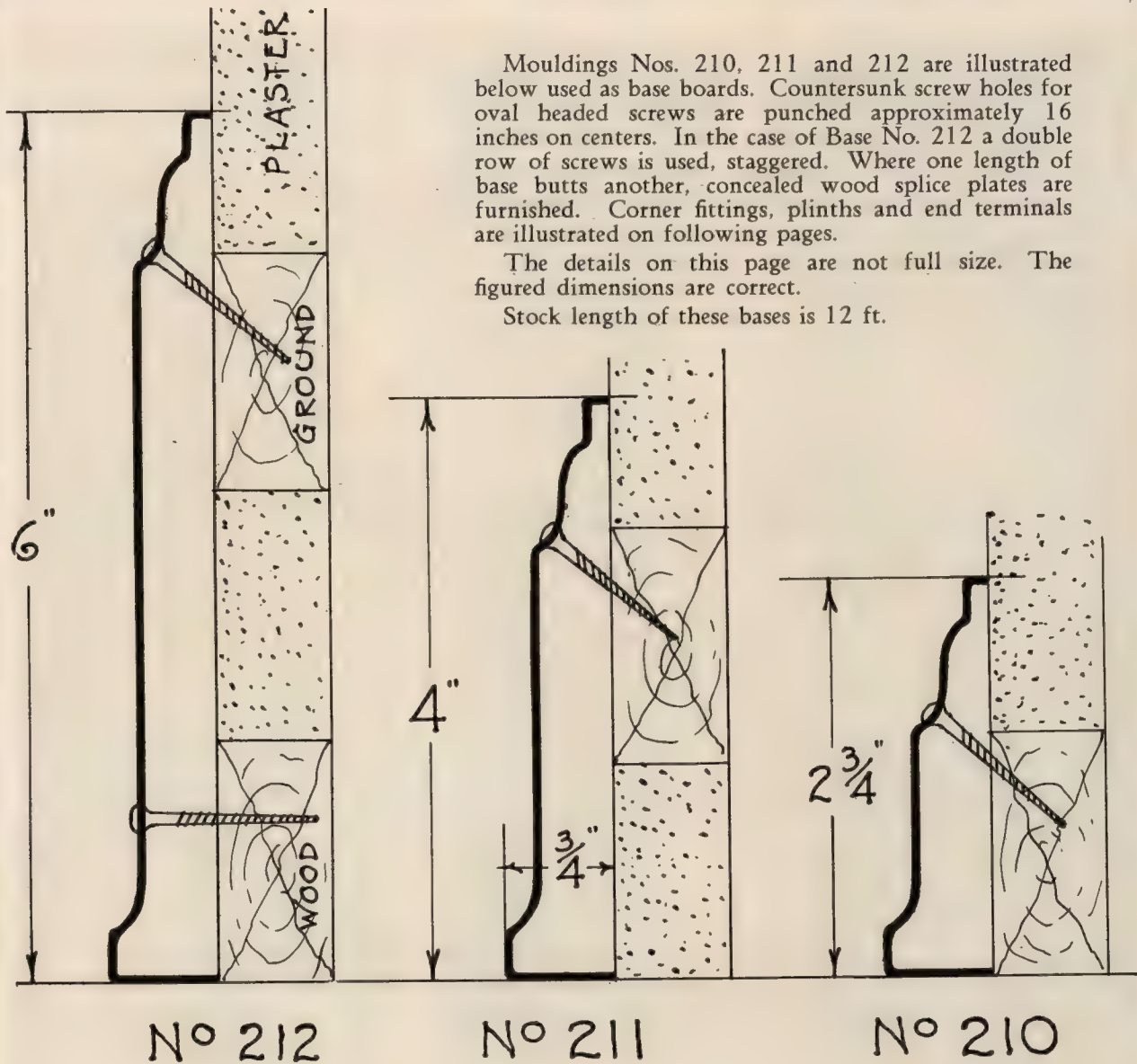
Base No. 206 is a straight base without the bottom cove feature. It is standard only as illustrated above in 18 gauge steel.

NO 206 BASE



B. P. O. E. BUILDING, BROOKLYN, NEW YORK

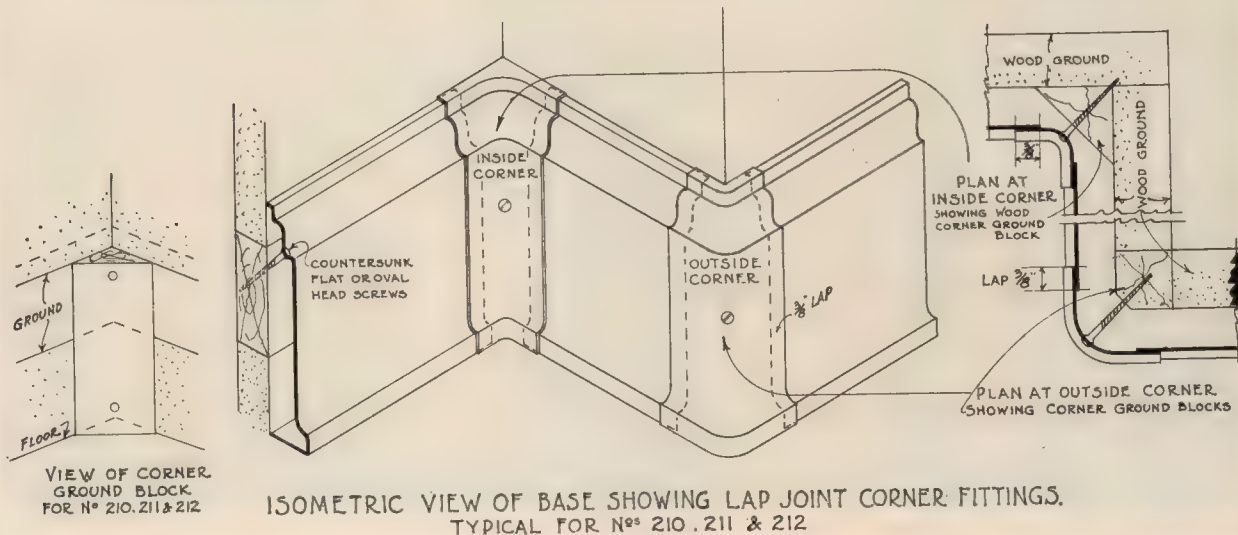
Architects: McKim, Mead, and White, New York City. No. 206, 6-inch Base.



Mouldings Nos. 210, 211 and 212 are illustrated below used as base boards. Countersunk screw holes for oval headed screws are punched approximately 16 inches on centers. In the case of Base No. 212 a double row of screws is used, staggered. Where one length of base butts another, concealed wood splice plates are furnished. Corner fittings, plinths and end terminals are illustrated on following pages.

The details on this page are not full size. The figured dimensions are correct.

Stock length of these bases is 12 ft.





Nos. 210, 211, 212 —CASING AND BASE FITTINGS

Pattern No. **1222** —Overlapping miter fitting for No. 210 moulding when it is used as a casing.

Pattern No. **1214** —External overlapping corner fitting for No. 210 base.

Pattern No. **1213** —Internal overlapping corner fitting for No. 210 base.

Pattern No. **1219L**—Left hand overlapping end stop for No. 210 base.

Pattern No. **1219R**—Right hand overlapping end stop for No. 210 base.

S. P. —Wood splice plate for No. 210 base. (This is concealed and does not show.)

Pattern No. **1215L**—Left hand plinth, $3\frac{3}{8} \times 4\frac{1}{4}$ inches for use with No. 210 casing and No. 210 or No. 211 base.

Pattern No. **1215R**—Right hand plinth, $3\frac{3}{8} \times 4\frac{1}{4}$ inches for use with No. 210 casing and No. 210 or No. 211 base.

Pattern No. **1224L**—Left hand plinth $4\frac{3}{8} \times 4\frac{1}{4}$ inches for use with No. 211 casing and No. 210 or No. 211 base.

Pattern No. **1224R**—Right hand plinth, $4\frac{3}{8} \times 4\frac{1}{4}$ inches for use with No. 211 casing and No. 210 or No. 211 base.

S. P. —Wood splice plate for No. 211 base. (This is concealed and does not show.)

Pattern No. **1218** —External overlapping corner fitting for No. 211 base.

Pattern No. **1217** —Internal overlapping corner fitting for No. 211 base.

Pattern No. **1226L**—Left hand overlapping end stop for No. 211 base.

Pattern No. **1226R**—Right hand overlapping end stop for No. 211 base.

Pattern No. **1223** —Overlapping miter fitting for No. 211 moulding when it is used as a casing.

S. P. —Wood splice plate for No. 212 base. (This is concealed and does not show.)

Pattern No. **1221** —External overlapping corner fitting for No. 212 base.

Pattern No. **1220** —Internal overlapping corner fitting for No. 212 base.

Pattern No. **1227L**—Left hand overlapping end stop for No. 212 base.

Pattern No. **1227R**—Right hand overlapping end stop for No. 212 base.

Pattern No. **1216L**—Left hand plinth $3\frac{3}{8} \times 6\frac{1}{4}$ inches for use with No. 210 casing and No. 211 or No. 212 base.

Pattern No. **1216R**—Right hand plinth $3\frac{3}{8} \times 6\frac{1}{4}$ inches for use with No. 210 casing and No. 211 or No. 212 base.

Pattern No. **1225L**—Left hand plinth $4\frac{3}{8} \times 6\frac{1}{4}$ inches for use with No. 211 casing and No. 211 or No. 212 base.

Pattern No. **1225R**—Right hand plinth $4\frac{3}{8} \times 6\frac{1}{4}$ inches for use with No. 211 casing and No. 211 or No. 212 base.

Note: Unlike the corner fittings used with other base boards, the fittings for the Nos. 210-211-212 group are stamped instead of cast and are applied to lap over the mouldings instead of being flush with them. This method is particularly designed for economy in erection. If desired, cast flush fittings can be made to order. Splice plates are made of soft wood.

No fittings are made for moulding No. 209 as this is usually used only in closets or like places and is mitered or coped at corners.



DESCRIPTION—CAST PLINTH BLOCKS

- Pattern No. **40**—R and L used only with No. 202 and No. 501 and $\frac{7}{8}$ by 3 inch trim.
- Pattern No. **42**—R and L for No. 202 and No. 501. Also Nos. 203-204-205 and 1 by 4 inch trim.
- Pattern No. **101**—R and L for No. 202 and No. 501. Also Nos. 203-204-205 and 1 by 4 inch trim.
- Pattern No. **105**—6 inches R and L for No. 202 and No. 501 only $\frac{7}{8}$ by $2\frac{1}{2}$ inch trim.
- Pattern No. **85**—6 inches R and L for No. 202 and No. 501. Also Nos. 203-204-205 and $\frac{7}{8}$ by $3\frac{1}{2}$ inch trim.
- Pattern No. **63**—6 inches R and L for No. 202 and 501. Also Nos. 203-204-205 and $\frac{7}{8}$ by $3\frac{3}{4}$ inch trim.
- Pattern No. **57**—6 inches R and L for No. 202 and 501. Also Nos. 203-204-205 and $\frac{7}{8}$ by $4\frac{3}{4}$ inch trim.



HOSPITAL FOR FEEBLE MINDED, BYBERRY, PENNA.

Architect: P. H. Johnson, Philadelphia, Pa. Illustrating No. 204, 6 inches, 18 gauge Base with Cast Plinth Blocks.

HOW TO CUT METAL BASE (Any Style)



Figure I

Lay length of base on table or saw horses, face up. Use a short section of the base as a template marker and mark a straight cutting line (as illustrated to the left) at the point where cut is to be made. *Note:* The first template marker is usually a short piece cut from a regular length. In cutting the original template, a little care must be exercised to get it accurate.

Remove the saw from the regular miter saw box and use it to saw along the marked line the same as with wood. The saw should be held at an angle about as illustrated to the right. By sawing in this position, the burr, if any, will be on the back side of the base. This burr is easily removed with a file, should it offer any difficulty when attaching fittings.



Figure II

HOW TO ATTACH FITTINGS TO METAL BASE



Figure III

With the exception of metal base boards Styles 210-211-212 all base boards have corner and end terminal fittings of cast iron. These fittings have flanges by which they are bolted to the base. The bolt holes in the flanges are drilled and tapped at the factory but the corresponding holes in the base must be made on the job. With each style of base a punch block is furnished, used for the purpose of punching holes in the end of the base at the proper places to align with the holes in the flanges of the fittings.

The illustration above shows a piece of Style 202 base set against the guides of the punch ready for the workman by a simple turn on the lever to punch these holes. The principle is the same for other styles of base.

In the illustration to the right, the holes have been punched and the workman is slipping the end of the base over the flanges of the fittings.



Figure IV

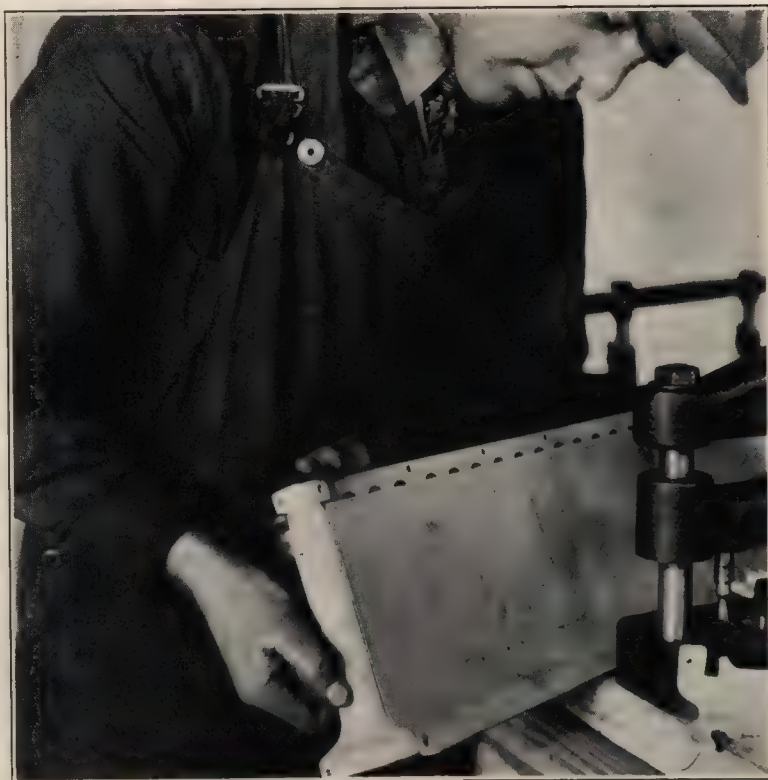


Figure V

HOW TO INSTALL $\frac{1}{4}$ " FLOOR FLANGE, No. 202 BASE

When using Style 202 base having the $\frac{1}{4}$ inch floor flange, a unique condition exists with regard to attaching fittings. In this one case, an extra operation is necessary. This operation consists in first kerfing the floor flange of the base as shown in figure I and then in bending it down straight with pliers as shown in figure II. The end of the base is then put in the punch block (figure III) in just the same manner previously described and the holes for attaching fittings are punched as in figure IV. The fitting is then slipped over the end of the base and fastened in the regular way as shown in figure V.

When setting this base in position on the floor, the bottom of the fitting is obviously below the floor line. In this case a small hole must be chipped out or cut in the floor to accommodate the bottom of the fitting.

In the illustration to the left, the fitting is in place on the end of the base and the workman puts the stove bolts and machine screw, (furnished with the fittings) through the aligned holes and tightens up with a screw driver. This section of base with fitting attached is now ready to set in position.

Note: In some styles of base, fittings are attached with both stove bolts and machine screws. In other styles, fittings are fastened with one or the other. However, the conditions will be perfectly obvious to the workman.



Figure I



Figure II



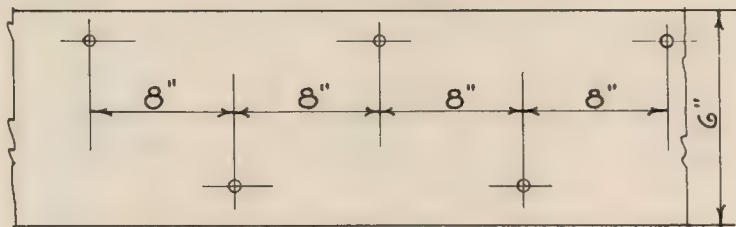
Figure III



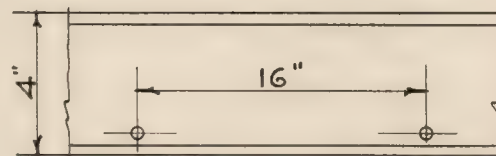
Figure IV



Figure V



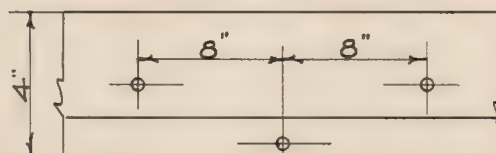
ELEVATION OF BASE N° 203
6" HIGH



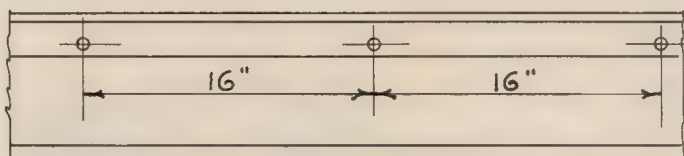
ELEVATION OF BASE N° 207
4" HIGH



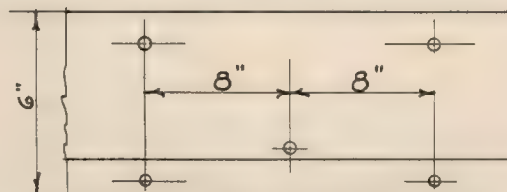
ELEVATION OF BASE N° 203
4" HIGH



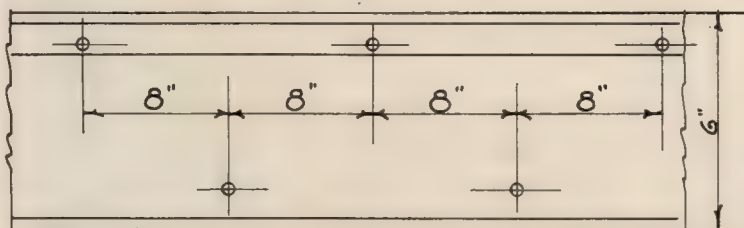
ELEVATION OF BASE N° 204
4" HIGH



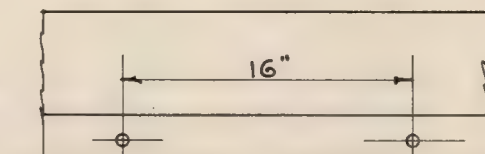
ELEVATION OF BASES
N° 209 - 210 AND 211



ELEVATION OF BASE N° 204
6" HIGH



ELEVATION OF BASE N° 212
6" HIGH



BASE N° 205 AND 205 $\frac{1}{2}$
4" AND 6" HIGH

DIAGRAMS ILLUSTRATING OUR STANDARD
SCREW HOLE PUNCHING FOR KNAPP METAL BASES



Section III

The Knapp Metal Sanitary Casings make an ideal method of trimming around doorways, borrowed lights, cased openings, grilles, register faces, skylights, or around any other penetrations in plastered walls and partitions.

Section III

METAL CASINGS FOR DOORS, WINDOWS, ETC.

General Information and Specification Data

FUNCTION AND MERIT

KNAPP Sanitary Metal Casings have been used for fourteen years. They meet a definite demand for an artistic and yet strictly sanitary method of trimming around doorways, windows, borrowed lights, register faces and other similar openings.

Metal casings are time-savers in the completion date of the building. This is due not only to the quickness and simplicity of erection but to the fact that it is not necessary to wait for the plaster to dry in order to trim the openings. They are fire-proof, vermin-proof, easy to clean and maintain and do not shrink or warp. In cost they compare favorably with wood.

These casings fall into two classes, namely, those which are erected before plastering and finish flush with the plaster, and those which are erected after plastering or on unplastered walls and project beyond the finished wall surface.

SPECIFICATION DATA

CHOICE IN SELECTING CASINGS OF THE PLASTERED-IN TYPE

In selecting the kind of casings which are plastered-in, attention is called to the different types. The O. G. nose type of casings, (Nos. 40, 41, 70 and 74) are one-piece casings. The wood jambs (or whatever other material is being used for jambs) are put in position prior to plastering and these casings are erected with the nose tight against the jambs. Woodwork thus placed before plastering should be well primed on all surfaces.

The quarter-round nose type of casing (Nos. 36, 37, 39, 79, 80, 72, 76 and 77) are usually called two-piece casings, because one-piece is erected on the rough buck before plastering, permitting the jambs to be placed after plastering and the second piece or shim moulding is used between the casing and the finish jamb to cover the shim joint. The metal mouldings used for this purpose are Nos. 24, 26 or 51.

Casings Nos. 30, 31, 32, 38 and 81 are variations from the others in the form of the nose only.

PLASTER THICKNESS

All plastered-in casings are made for either a $\frac{1}{2}$ inch or $\frac{3}{4}$ inch plaster ground thickness ex-

cept Nos. 33 and 80, which are made for $\frac{3}{4}$ inch only. Specifications should mention the plaster ground thickness. A $\frac{5}{8}$ inch ground thickness can be made for all casings except Nos. 30, 33, 37, and 80. This ground thickness is special and must be ordered in advance.

PLASTER KEY FEATURE

Examination of the details on the following pages will disclose that most of these casings are designed with an extended perforated and corrugated plaster key flange. These key flanges function as a method of keying the plaster over the rough buck. Particular attention is called to the variation in the width of these plaster key flanges. They are so designed as to meet varying widths of buck and it is important that the casing should be selected so that the flange will entirely cover over the buck. These flanges are an integral part of the casing. In Nos. 70, 72, 74, 77, 80 and 81, a semi-flexible flange is welded to the nose of the casing. The last-named types are particularly recommended around swinging doors, as this semi-flexible feature absorbs effectively the shock of a door slam. The rigid flange casings are primarily designed for windows, borrowed lights and other places where the slamming door

danger does not exist and the rigid flange forms a desirable anchor between the buck and the partition.

The casings without flanges (Nos. 31, 33, 36, 38 and 40) are designed to be used on lathed walls or partitions, in which case the lath is merely lapped over the short nailing flange. They should not be used without lath.

Specifications should use the style numbers given in this handbook.

HOLDING CLIPS and MITER BRACES

In using flush-with-the-plaster casings, a holding clip (No. 45) has been developed which it is desirable to use. (See illustration, page 85.) This clip holds the nose of the casing tight against the jamb or buck by virtue of spring tension.

For reinforcing the miters, the cast iron miter brace No. 46 is used. This holds the miter in place and prevents the opposing members being knocked out of alignment.

APPLIED-AFTER-PLASTER TYPE OF CASINGS

Nos. 34 and 35 are of the plain unmoulded type. Nos. 210 and 211 are of the ornamental moulded type. These casings are put on after plastering in the same way that ordinary wood casings would be and are held in place by countersunk oval headed screws. Screw holes are punched at the factory approximately 10 inch O. C. and every hole should have a screw. These screws are furnished with the casings. A special miter fitting has been developed for Nos. 210 and 211, illustrated on page 88.

HOW CASINGS ARE FURNISHED AND ERECTED

All casings are furnished in standard stock lengths of 6 ft., 7 ft., 7 ft. 4 inches, 8 ft., 9 ft., 10 ft. and 12 ft. They can be sent to the building in crates and can be mitered on the job or, if so specified, can be sent with the miters already cut at the factory, or, as a second alternative, they can be sent in made-up units with the miters welded at the factory. In the latter cases, the contractor furnishes the factory with proper measurements and the casings are shipped ready to erect. All crates are marked and identified so that the erector has no difficulties on the job in selecting the proper lengths for application.

There is no unique problem to the erection of casings and the method is quite familiar to the trade. The architect should specify however, that the plastered-in casing is not only to be held by the No. 45 clip under the nose, but the edge of the extending plaster key flange should also be nailed or stapled to the construction at intervals of about 18 inches. Nos. 30 and 37 plastered-in casings are screwed to construction. When metal casings are mitered on the job, they are sawed in a miter box with hack saw blades exactly the same as wood; the company sells hack saws and blades for the purpose. Any burr left is small and can be quickly filed off. When using mouldings to cover the shim joint, proper blocking should be placed in the joint to receive the screws from the mouldings. (See illustration on page 85.)

WHEN ORDERING CASINGS

On page 95 a diagram is shown which should be consulted when ordering casings. Particular attention is called to the margin of set back. When not otherwise called for the set back shown on these diagrams is standard. Any variation from these standards should be definitely shown or specified.

FINISH

The exposed surface of the casings is given *Knapp Special Primer* at the factory. This functions not so much as a protection to the metal (which is extra tight coat galvanized) as it is a necessary ground primer for subsequent decoration. It adheres tenaciously to the metal and dries hard. It is applied by the compressed air method and will not peel off. A finish applied to casings at the factory is liable to injury in erection, consequently the matter of finish should be specified under painting or decorating to be put on after the casing is applied in place and the plastering is finished.

PLINTHS

Metal plinths to go with the several types of casing are illustrated in this handbook under the metal base division. (See Section II.)

KIND OF METAL USED AND GAUGE

Metal used for casings is all extra tight coat galvanized steel (hot process). The standard gauges for the several casings are shown on the profiled details, pages 82 and 83.



Veterans Hospital, St. Louis, Mo. Showing No. 41 door casing and No. 41 casing on borrowed light and No. 202 base.



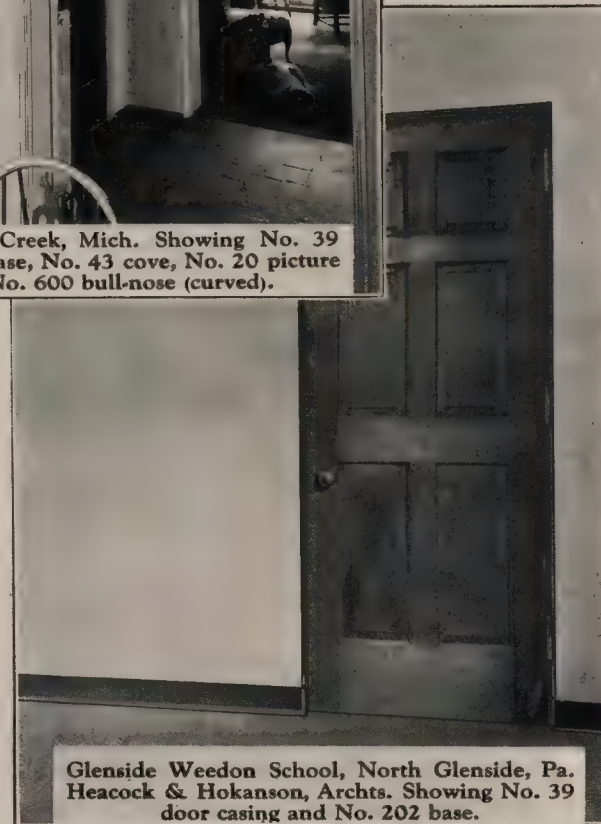
North Glenside School, Glenside, Pa. Heacock & Hokanson, Archts. Showing No. 39 door casing and No. 202 base.



A. B. Chanel Residence, Battle Creek, Mich. Showing No. 39 casing, No. 24 mould, No. 205 base, No. 43 cove, No. 20 picture mould, No. 304 stool and No. 600 bull-nose (curved).



Veterans Hospital, St. Louis, Mo. Showing No. 41 door casing and No. 202 base.



Glenside Weedon School, North Glenside, Pa. Heacock & Hokanson, Archts. Showing No. 39 door casing and No. 202 base.



A. B. Chanel Residence, Battle Creek, Mich. Note particularly the pleasing effect of No. 39—"flush with plaster" casing.



E. C. Corlette Residence, Battle Creek, Mich., illustrating elliptical curving of the No. 39 door casing.



Herbert Golterman Residence, St. Louis, Mo. Note how the No. 211 applied casing forms its own plinth for No. 211 base. This photo illustrates a miter-welded casing, shipped assembled.



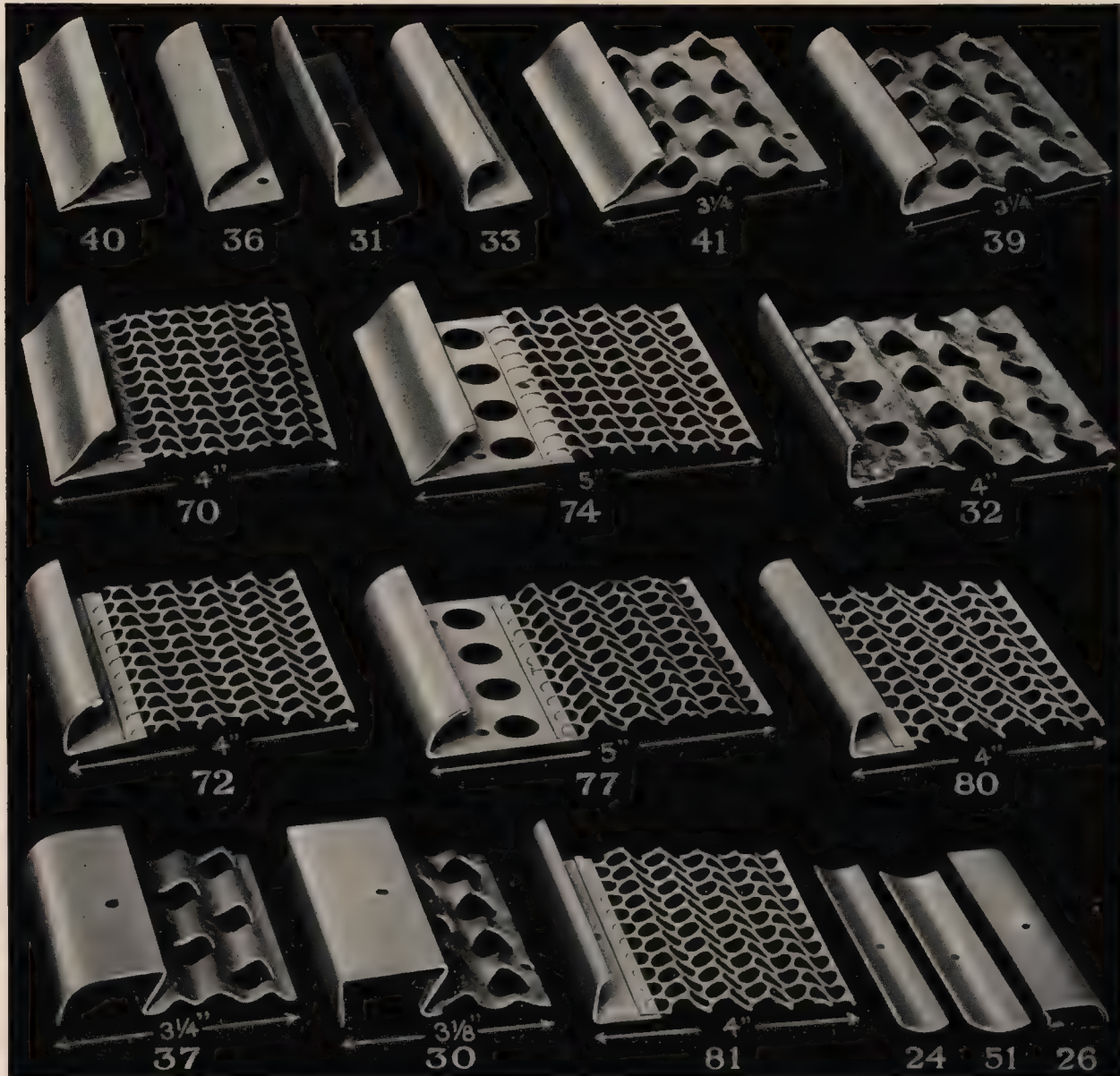
A. B. Chanel Residence, Battle Creek, Mich. Another view of No. 39 door casing and No. 24 mould, also showing No. 205 base and No. 43 cove combination.



HOLLAND HOSPITAL, HOLLAND, MICHIGAN
Architects: Pond, Pond, Martin and Lloyd, Chicago. No. 35 Door and Window Casing and No. 304 Window Stools

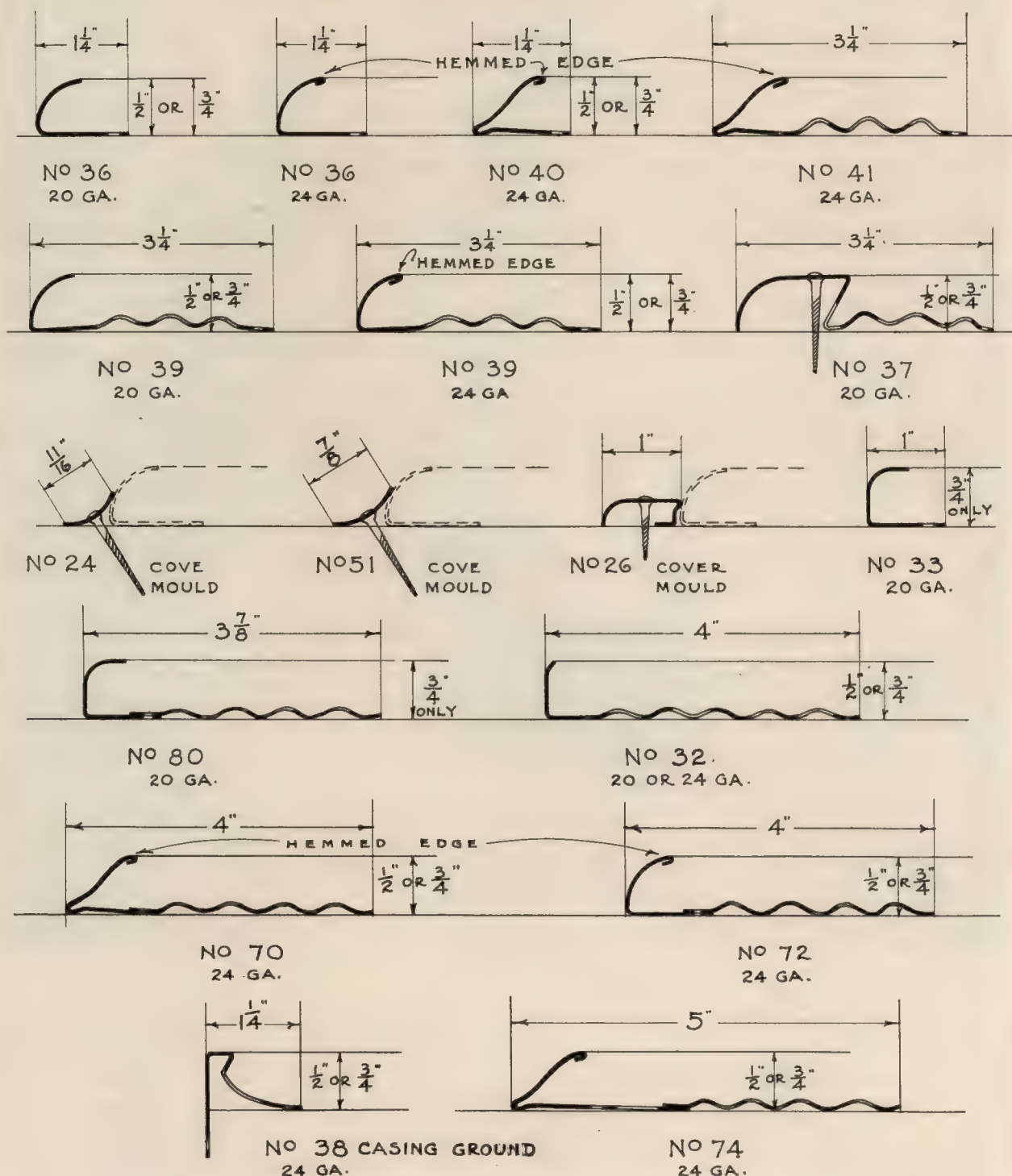


GOLTERMAN RESIDENCE, ST. LOUIS, MO.
No. 211 Complete Window Trim, No. 211 Base, Picture Mould and Corner Bead.



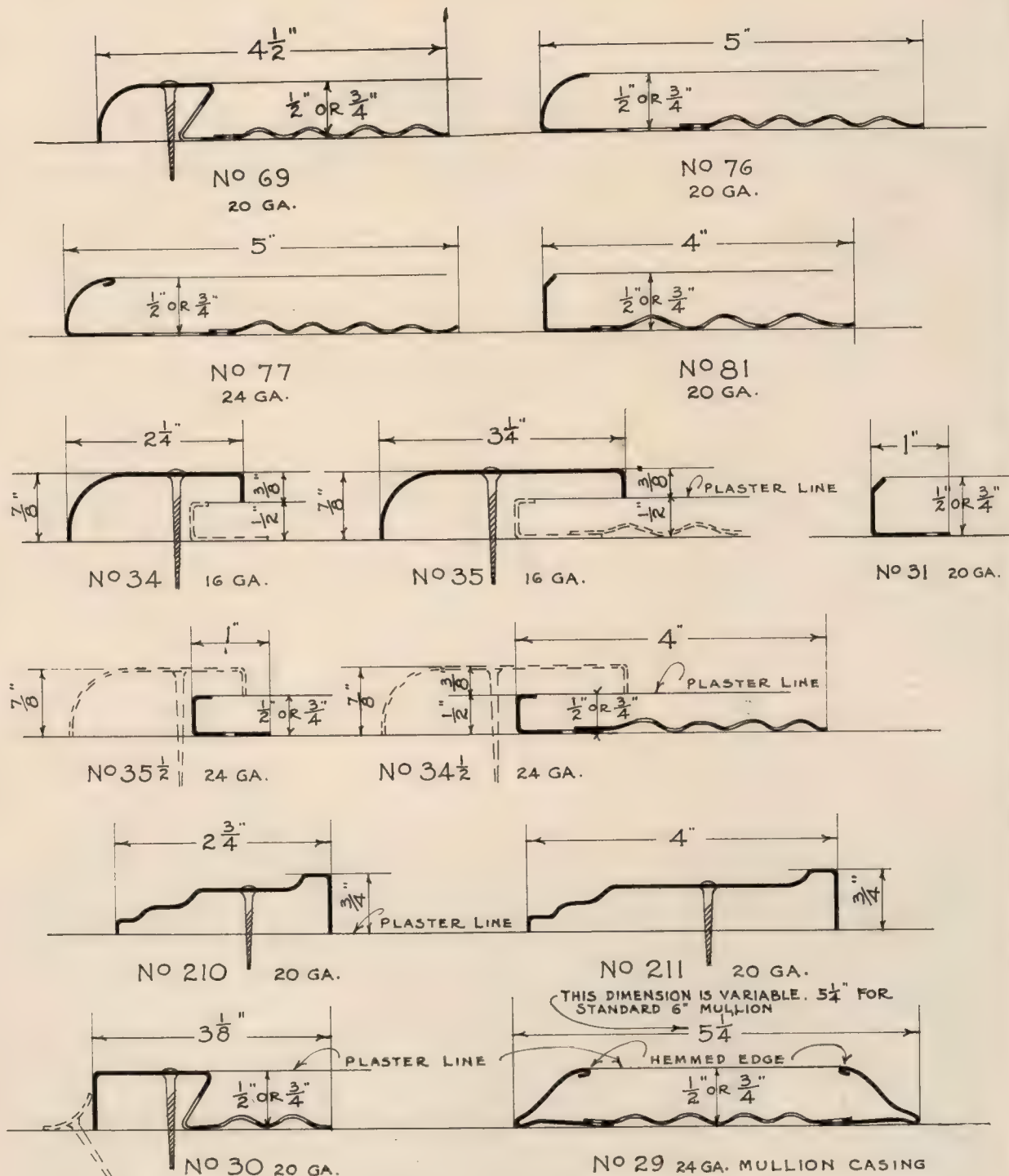
- Style 40—O. G. type, short flange, 24 gauge, hemmed edge.
 Style 41—O. G. type, $3\frac{1}{4}$ inches, solid flange, 24 gauge.
 Style 70—O. G. hemmed edge, 4 inches, semi-rigid flange, 24 gauge.
 Style 74—O. G. hemmed edge, 5 inches, semi-rigid flange, 24 gauge.
 Style 36—Quarter round nose, short flange, 20 or 24 gauge.
 Style 37—Quarter round nose, $3\frac{1}{4}$ inches, solid flange, 20 gauge.
 Style 69—Quarter round nose, $4\frac{1}{2}$ inches, semi-rigid flange, 20 gauge.
 Style 39—Quarter round nose, $3\frac{1}{4}$ inches, solid flange, 20 gauge.
 Style 72—Quarter round nose, hemmed edge, 4 inches, semi-rigid flange, 24 gauge.
 Style 76—Quarter round nose, plain edge, 5 inches, rigid flange, 20 gauge.
 Style 77—Quarter round nose, hemmed edge, 5 inches, semi-rigid flange, 24 gauge.
 Style 79—Quarter round nose, 20 gauge.
 Style 30—Right angle nose, $3\frac{1}{8}$ inches, solid flange, 20 gauge.
 Style 31—Right angle, beveled edge, short flange, 20 gauge.
 Style 32—Right angle, beveled edge, 4 inches, rigid flange, 20 or 24 gauge.
 Style 33—Right angle, modified edge, short flange, 20 gauge.
 Style 80—Right angle, modified, 4 inches, semi-rigid flange, 20 gauge.
 Style 81—Right angle, beveled edge, 4 inches, semi-rigid flange, 20 gauge.
 Style 24— $\frac{1}{8}$ inch cove mould.
 Style 51— $\frac{7}{8}$ inch cove mould.
 Style 26—1 inch mould.

(Patterns in Black figures are illustrated. Those in Light figures are not shown here.)



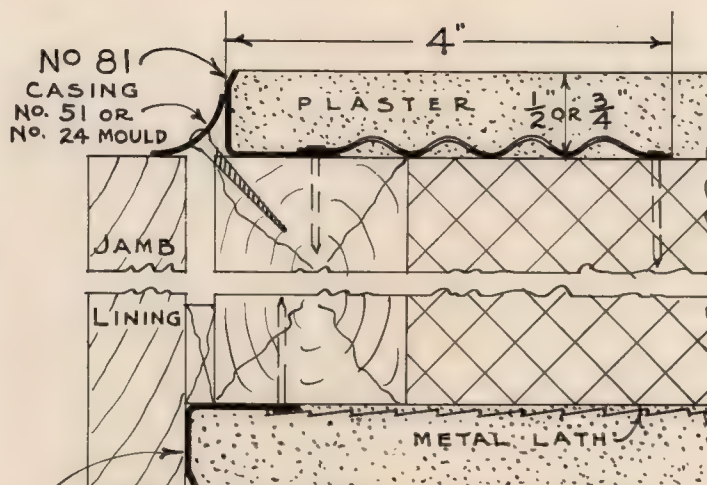
NOTE:— THE EXTENDING CORRUGATED FLANGES ARE PERFORATED TO GIVE PLENTY OF PLASTER KEY

HALF FULL SIZE PROFILES OF
KNAPP FLUSH AND APPLIED METAL CASINGS
FOR FURTHER DETAILS CONSULT FOLLOWING PAGES



NOTE:— THE EXTENDING CORRUGATED FLANGES ARE PERFORATED TO GIVE PLENTY OF PLASTER KEY

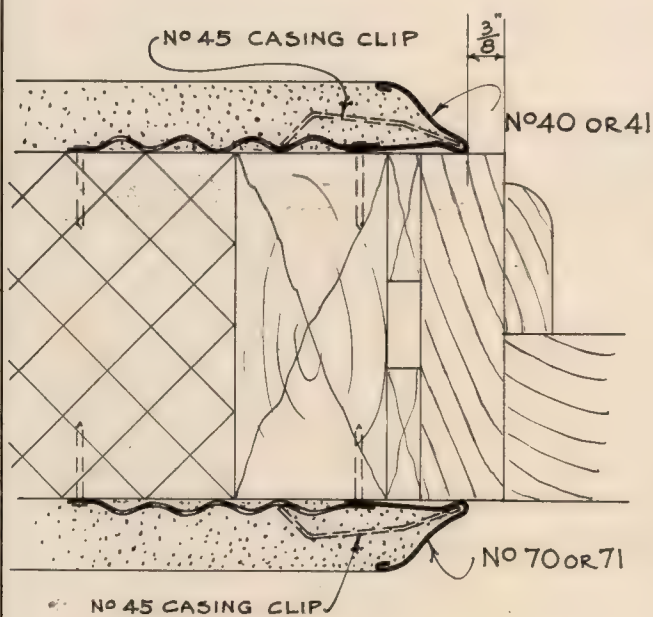
HALF FULL SIZE PROFILES OF
KNAPP FLUSH AND APPLIED METAL CASINGS
FOR FURTHER DETAILS CONSULT FOLLOWING PAGES



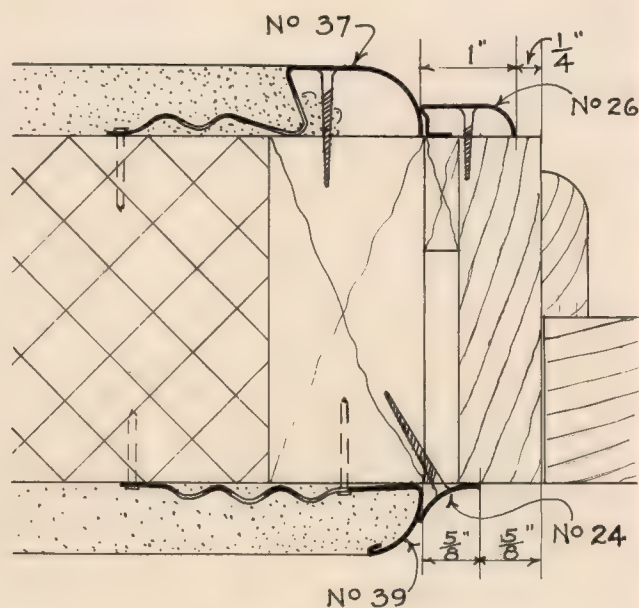
NO 31 CASING
TYPICAL METHOD OF USING FLUSH TYPE
DOOR CASING GROUND

These Flush Casings can be used with metal bucks as well as with wood jambs. (See illustration on page 97.) It is advisable when using a metal buck to have the casing a separate unit. By so separating the jamb from the casing the shock from a slamming door is materially broken before being transmitted to the plaster.

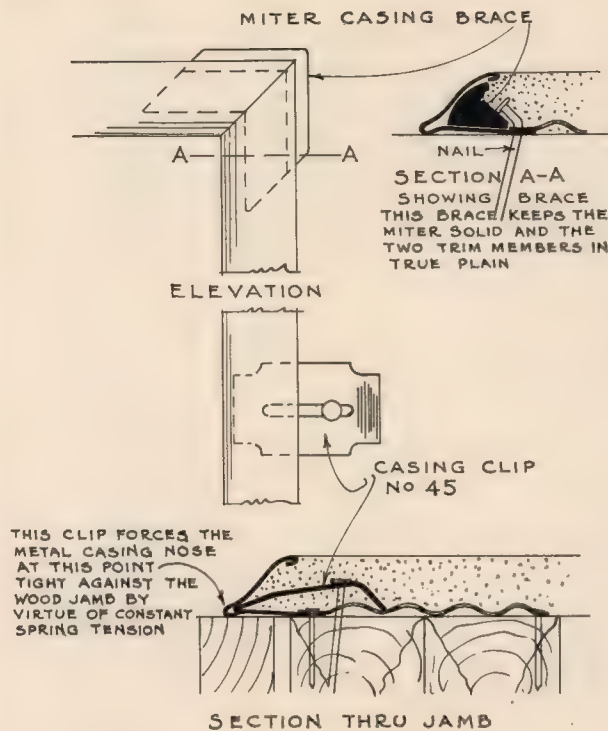
The details on this page show the typical methods of applying the Flush-With-Plaster Casings to ordinary partition construction. The dimensions given for set back margins around openings are standard. Note particularly the single and double member casings.



TYPICAL METHOD OF USING
FLUSH DOOR CASING
SINGLE MEMBER TYPE



TYPICAL METHOD OF USING
FLUSH DOOR CASING
DOUBLE MEMBER TYPE



DETAIL SHOWING APPLICATION OF KNAPP CASING CLIP No. 45 AND No. 46 MITER CASING BRACE USED WITH ANY OF THE O-G OR QUARTER ROUND PLASTERED-IN CASINGS HERE IN ILLUSTRATED.

(Left)

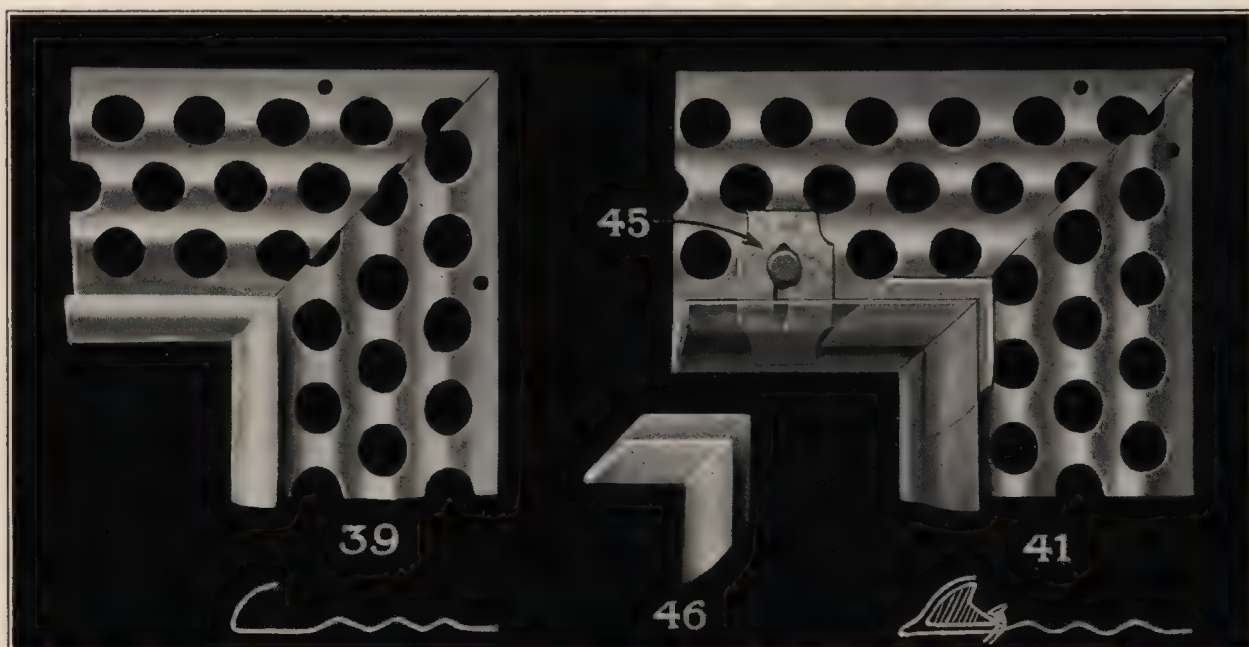
Detail showing No. 46 Miter Casing Brace in position. This brace keeps the miter solid, in close contact and the two trim-members in true plane. Can be used with either O. G. or quarter round flush-with-plaster casings.

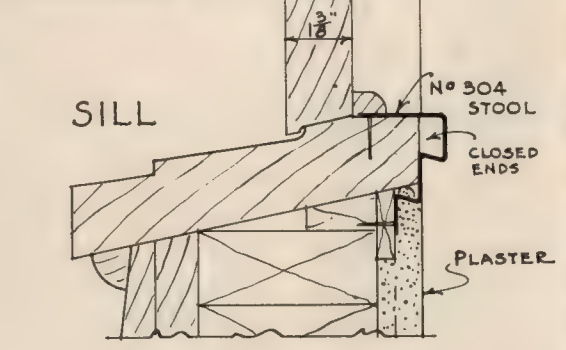
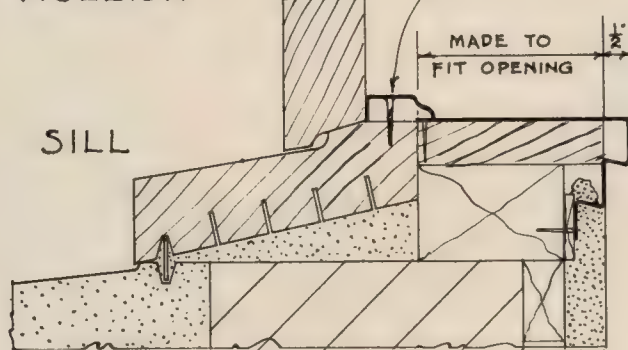
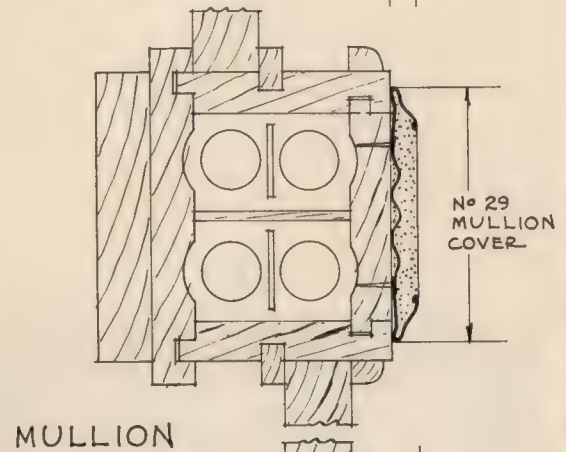
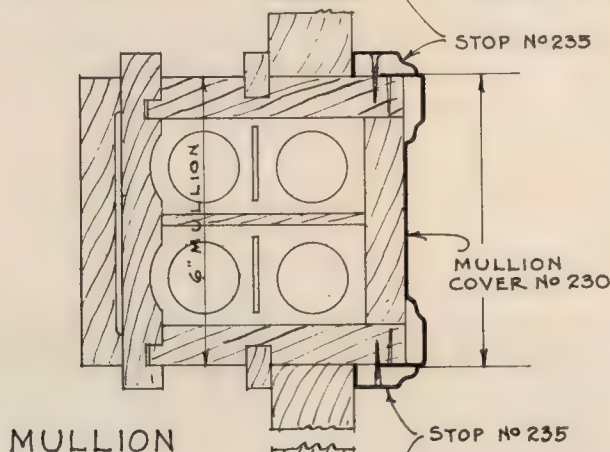
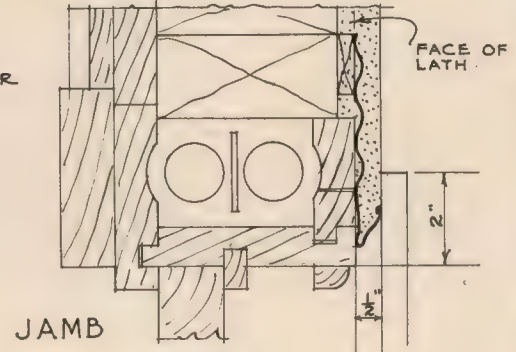
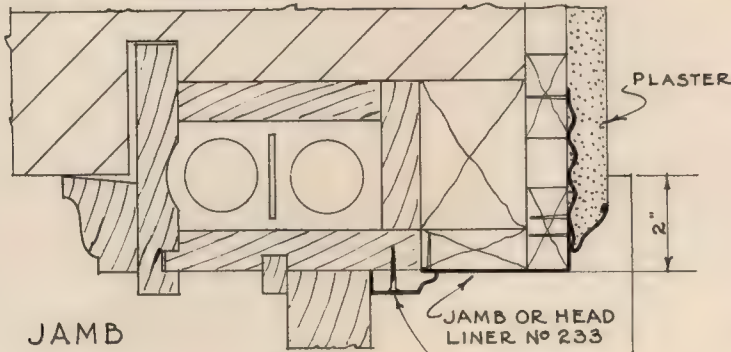
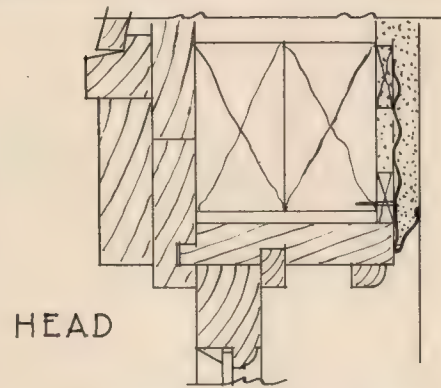
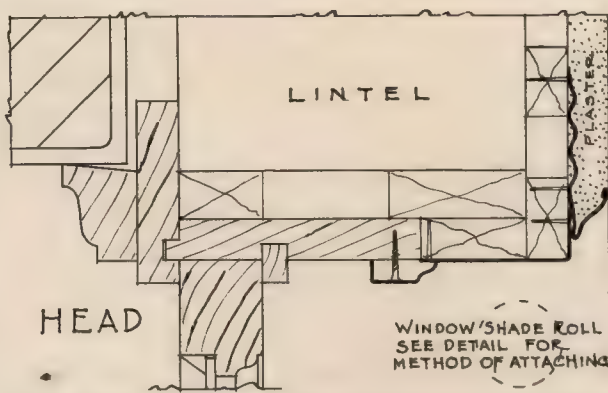
(Left)

Detail showing application of No. 45 Casing Clip. The purpose of this clip is two-fold:—

- (1) To force and hold the casing nose in tight contact with wood jamb.
- (2) By virtue of the slot, the nail may be placed where desired to prevent denting the face of casing.

Below:—Photo illustration of No. 46 Miter Casing Brace and No. 45 Casing Clip.

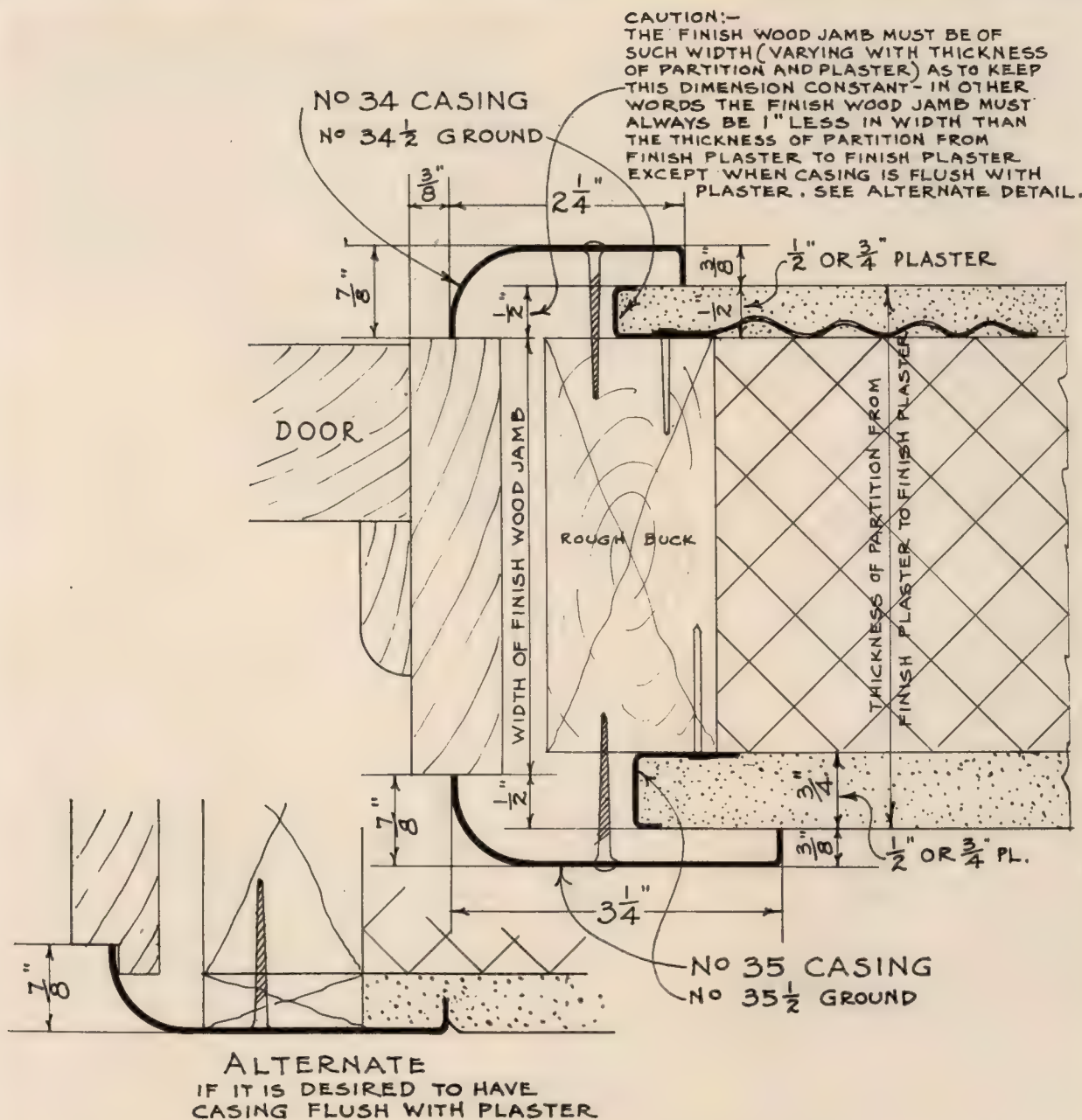




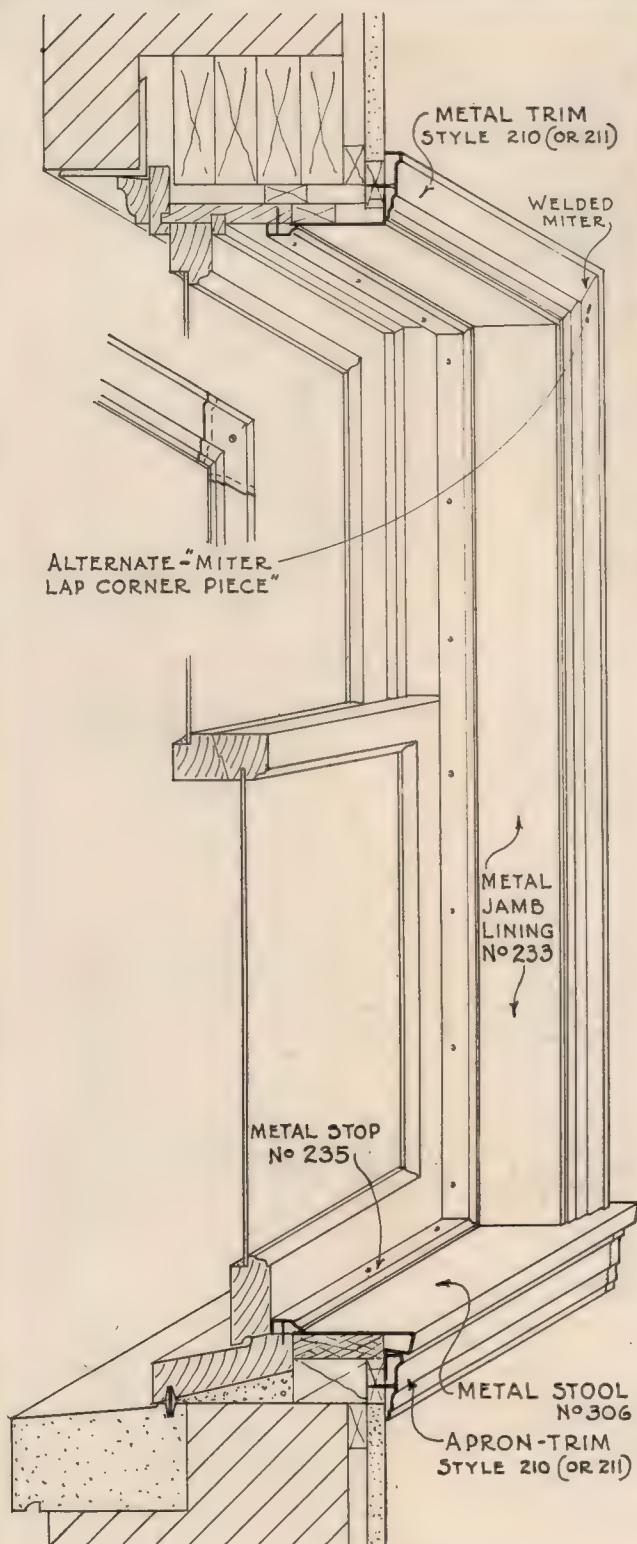
MASONRY WALL

FRAME WALL

NO 70 TRIM AND NO 304 STOOL USED IN CONNECTION WITH STANDARD BOX FRAME



The Nos. 34 and 35 Casings illustrated above are ordinarily applied after plastering. They differ from our other types of Sanitary Casing in that they project slightly beyond the plaster line and show a broader exposure of metal. The alternate detail above suggests the use of these Casings flush-with-the-plaster.



ISOMETRIC VIEW OF TYPICAL
DOUBLE HUNG WINDOW SECTION

Illustration above, at the left, shows relation in window construction of various trim members to each other in an ordinary brick wall. Jamb linings and stools are made to meet varying reveals. The miter lap corner fitting for casings is further described to the right.



CORNER MITER FITTING

No. 1222 for No. 210
(For No. 211, this is No. 1223)

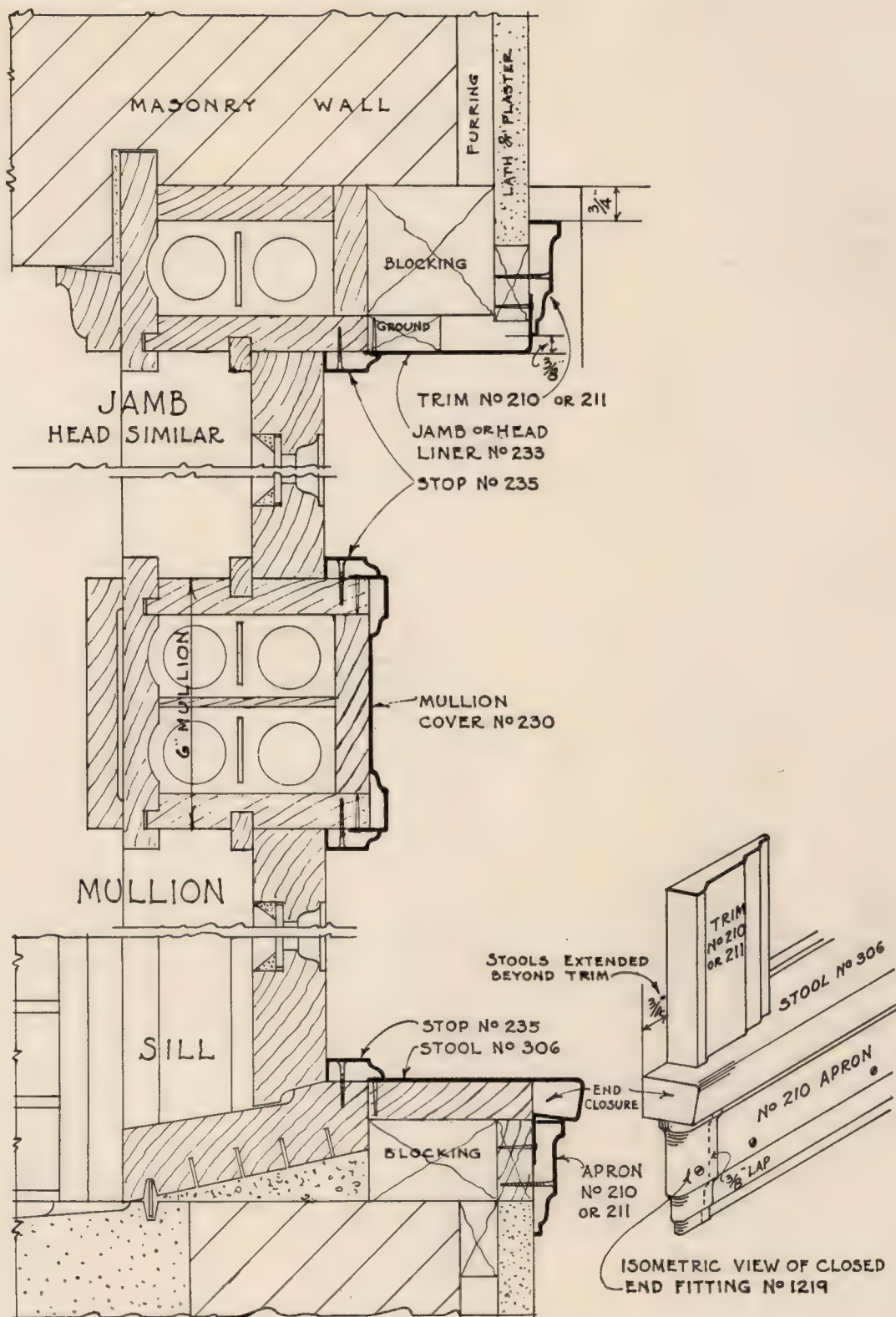
The fitting illustrated above is stamped in the form of a miter to match the moulding designs 210 and 211 and allows these mouldings to be used as knock-down casings around either doors, windows or borrowed lights. The pieces forming the head and jamb casings are sawed to required length with a straight cut (not miter). A leeway of $\frac{1}{4}$ inch is allowable in sawing lengths, thus hair line accuracy is not necessary to a good job. The lap miter piece which is applied after the head and jamb casings are in place, covers the intersecting right angle as illustrated, lapping the ends of the head and jamb casings.

The advantages which this fitting offers are three-fold.

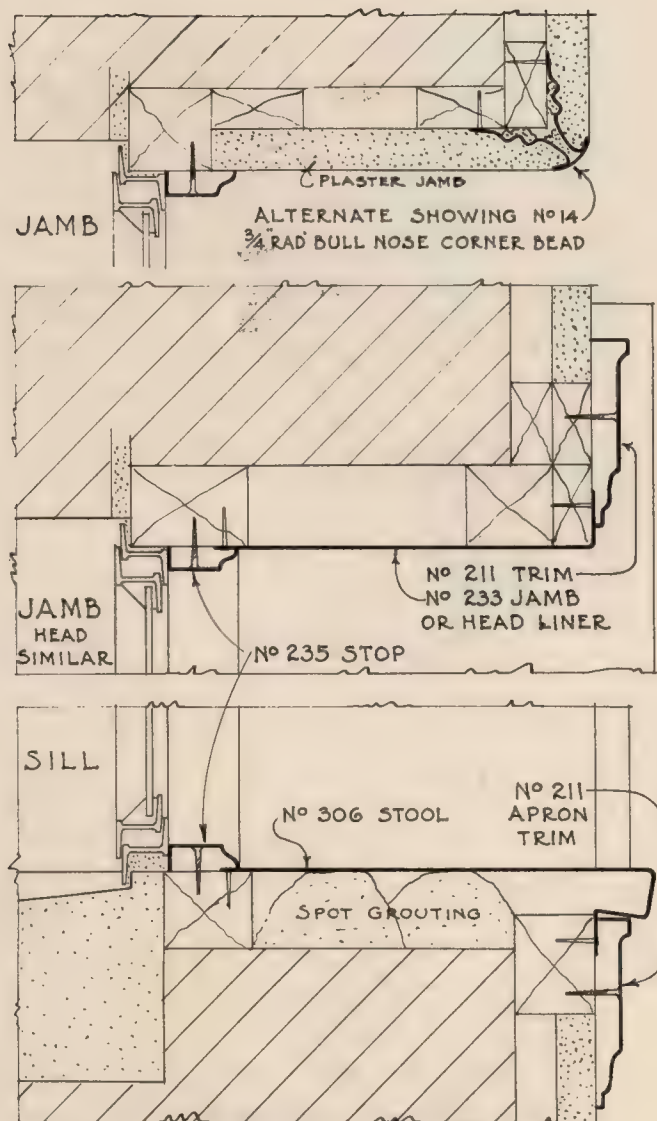
First: Casing mouldings can be shipped nested knock-down in crates and in stock lengths.

Second: No delay is occasioned waiting for close or accurate measurements; the contractor orders stock lengths as he needs the material.

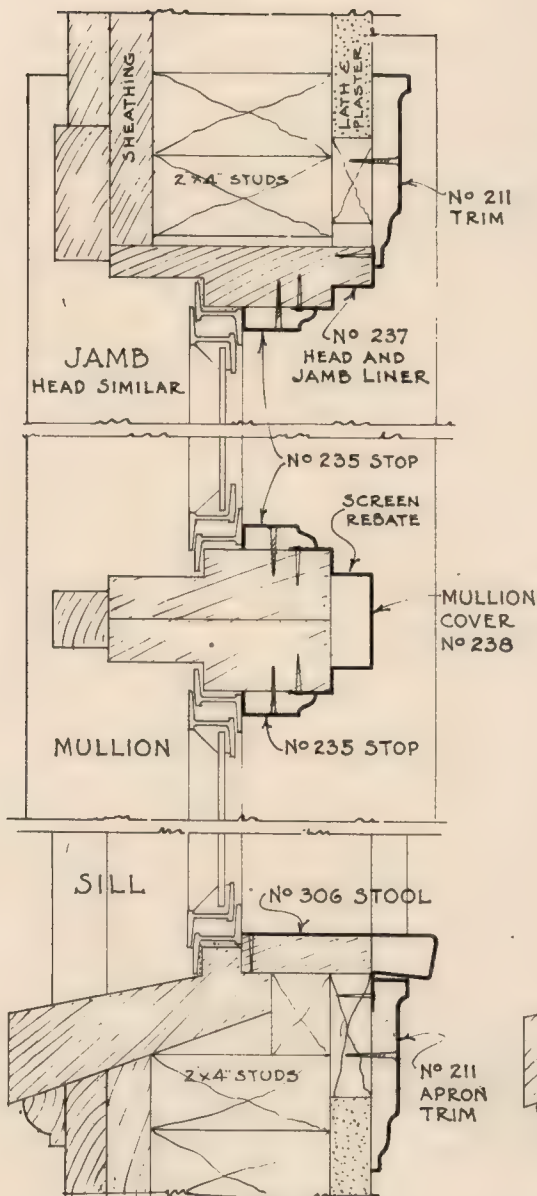
Third: Handling charges and freight rates are lower than where casings are mitered and welded into made-up units.



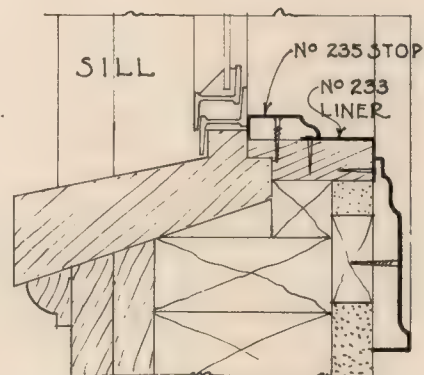
TYPICAL DOUBLE HUNG WINDOW IN MASONRY WALL



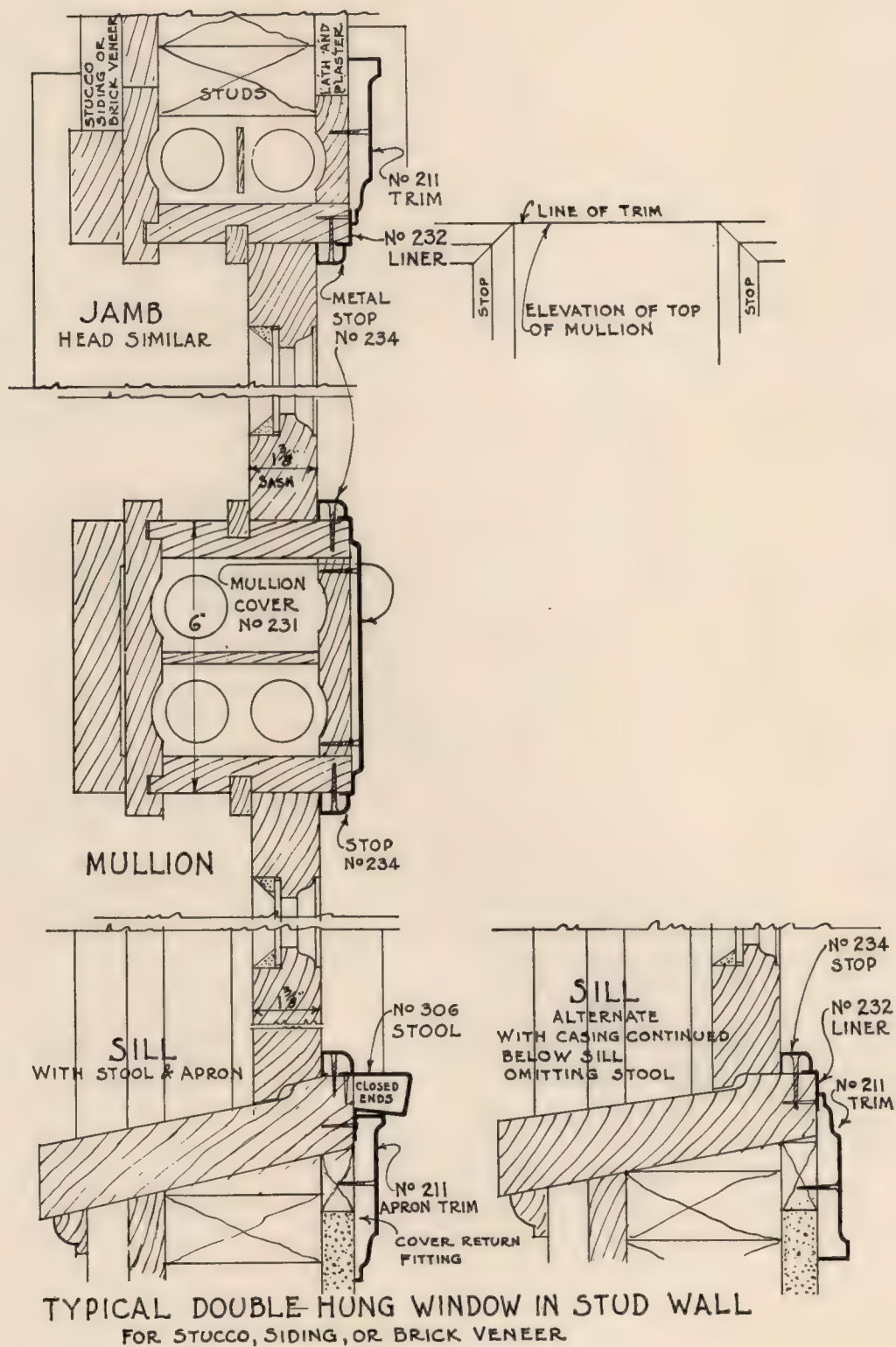
DETAIL OF STEEL CASEMENT SASH
IN MASONRY WALL

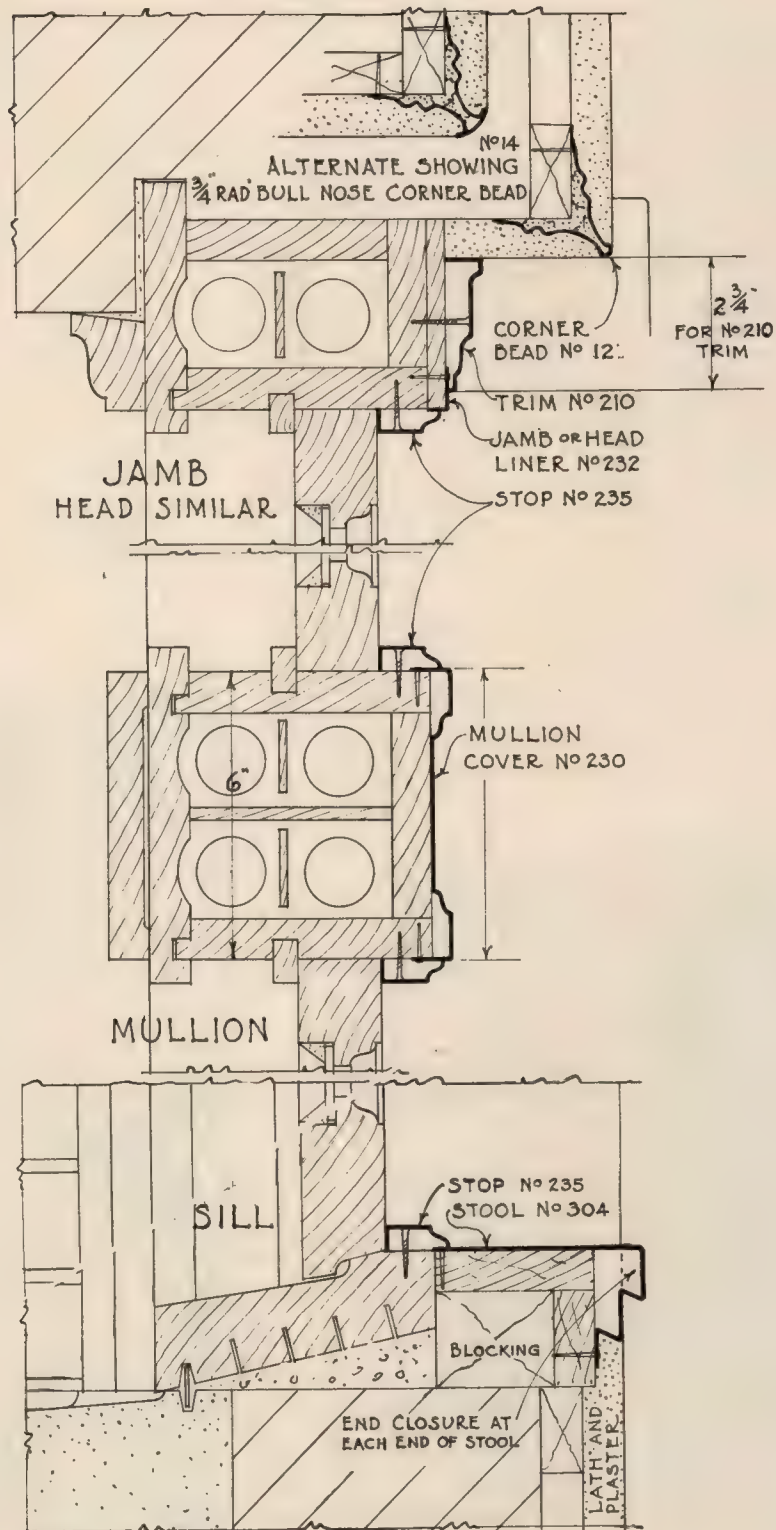


DETAIL OF STEEL CASEMENT SASH IN FRAME WALL

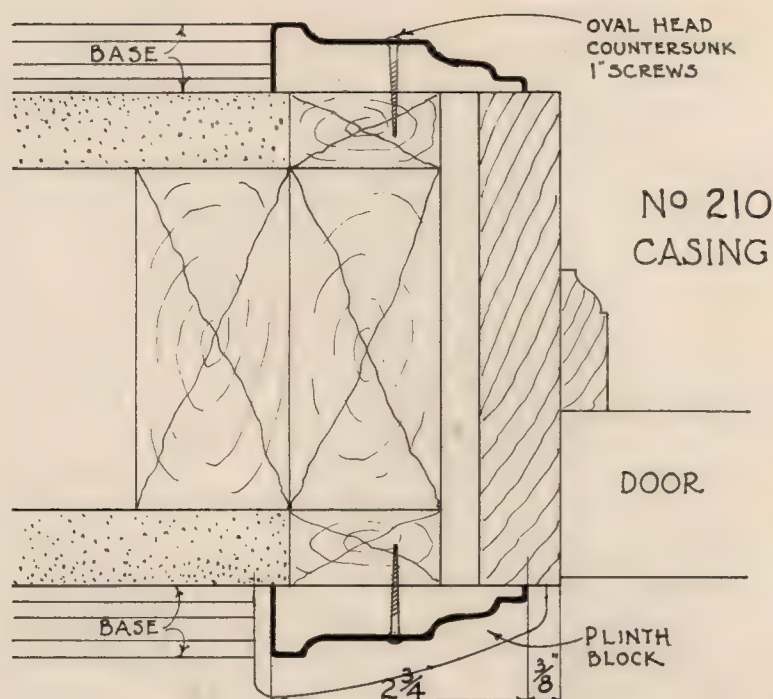


ALTERNATE DETAIL WITH CASING CONTINUED AROUND WINDOW OMITTING STOOL





TYPICAL DOUBLE HUNG WINDOW SECTION
IN MASONRY WALL WITH PLASTERED JAMBS



TYPICAL INTERIOR DOOR JAMB
SHOWING METAL CASING USED WITH WOOD JAMBS AND STOPS

Many architects prefer wood jambs for doors while desiring metal casings. This page shows such a combination. Wood jambs allow hardware to be fitted at the job and make it possible for the swing of the door to be determined at the last moment.

A wood filler block should be placed behind the trim at the point where door checks are to be attached. Punching the holes in the metal for door check screws is done on the job by laying the head piece over an edge grain wood block and punching with a simple cup point nail set.



Photographic illustration showing No. 210 Moulding
as Door Casing, also as a Base Board.



GOLTERMAN RESIDENCE, ST. LOUIS, MO.
Showing No. 211 Door Casing and No. 211 Base.

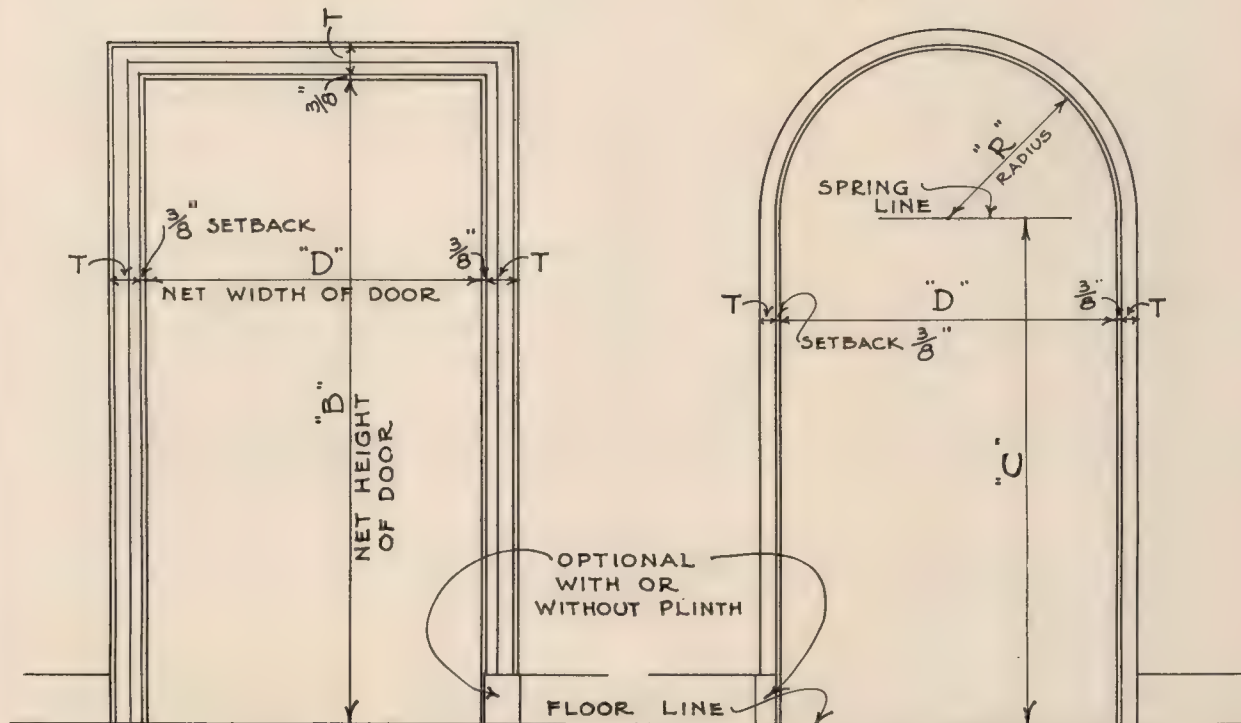
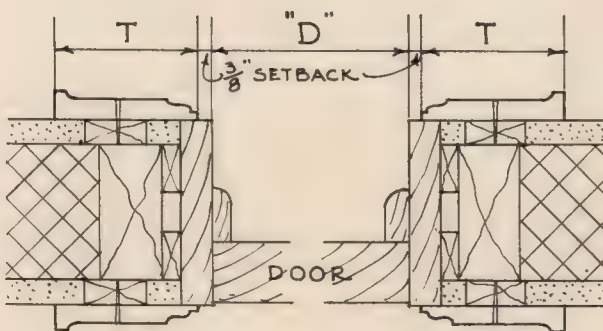
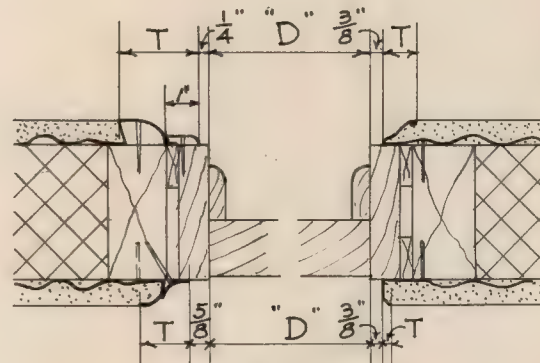


DIAGRAM NO 1
FOR DOOR OPENINGS TRIMMED
WITH APPLIED TYPE OF CASING
NO 209 - 210 OR 211

DIAGRAM NO 2
FOR DOOR OPENINGS TRIMMED
WITH FLUSH TYPE OF CASING



PLAN



PLAN

KEY TO SYMBOLS
T = EXPOSED WIDTH OF METAL TRIM
B = NET HEIGHT OF DOOR OPENING
D = NET WIDTH OF DOOR OPENING
C = HEIGHT FROM FINISHED FLOOR TO SPRING LINE
R = RADIUS OF ARCHED DOOR OPENING

DIAGRAMS SHOWING DIMENSIONS WHICH MUST BE SUPPLIED
WHEN ORDERING KNAPP FLUSH OR APPLIED DOOR CASINGS

Section IV

METAL BUCKS

Essential Information and Specification Data

FUNCTION AND MERIT

METAL bucks for door and borrowed light openings have become popular in the last few years. They provide a complete unit trim for the openings.

Knapp Brothers Manufacturing Company, in turning their attention to this field, are offering at this time a simple, inexpensive buck adaptable to various conditions. The Knapp buck provides that the casing shall be independent of the buck itself, whether the casing is the flush plastered-in type or an ornamental type. This is done to minimize the chance of plaster cracking caused by slamming doors.

The Company's development engineer is constantly at work on improvements to metal buck designs and further important contribution to the subject may be expected from time to time.

SPECIFICATION DATA

Specifications should call for Knapp Metal Buck and Casings. (Call for casings by hand-book number; see Section III.) A schedule of all openings giving sizes and showing what openings have transoms is a distinct assistance to proper estimating and to filling orders.

GAUGE OF METAL (U. S. Standard)

Bucks are made from 18 or 16 gauge steel. Specifications should mention the gauge.

BUCK CONSTRUCTION

Bucks are made for 2 inch, 4 inch and 5 inch partition thicknesses. The jamb and head pieces are neatly welded together as is also the transom bar. Adjustable anchors are provided for holding buck solidly to partition construction and a spreader is placed at the bottom to keep jamb members in alignment. Provisions for attaching hardware are made at the factory from instructions and templates furnished by the contractor and the back plates therefore are welded to the buck.

SIZES

Bucks are made to sizes called for by plans. All bucks are made to order.

DETERMINING SWING OF DOOR

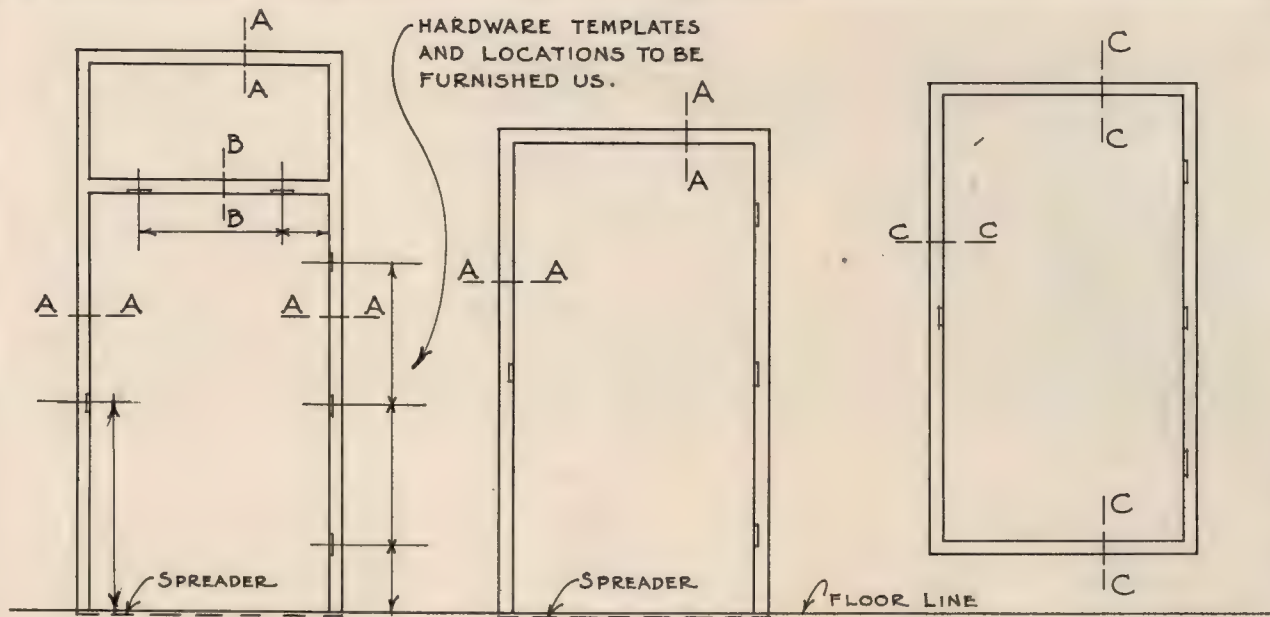
The swing of the door must be determined when ordering bucks.

FINISH

Bucks are primed at the factory on all sides with *Knapp Special Primer*. This adheres tightly to the metal and forms a base for subsequent decorations which should be specified in the painting or decorating specifications.

ERECTION

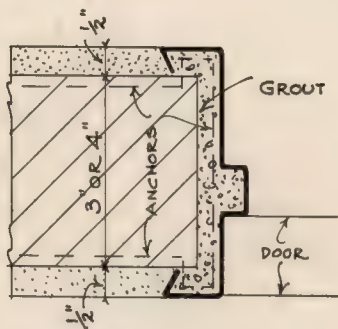
Metal Bucks are erected by carpenters. They are placed in position before partitions are built, plumbed and temporarily braced. As the partitions are being constructed the anchors are placed in between the courses of the masonry. Masonry specifications should call for a mortar back-up grout to be put in the space immediately behind the buck as the partition is built up.



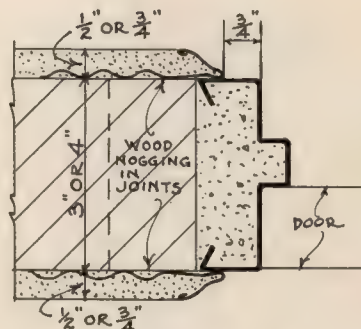
PLAIN FLUSH BUCK
WITH TRANSOM

PLAIN FLUSH BUCK
WITHOUT TRANSOM

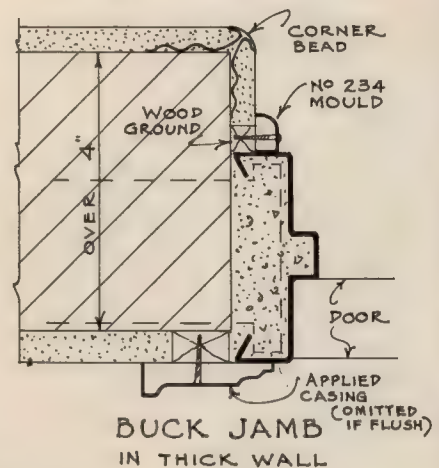
PLAIN FLUSH BUCK
FOR RECESSED CABINET



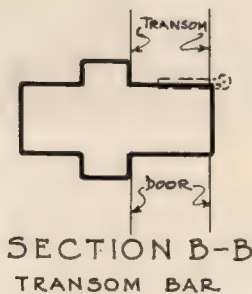
SECTION A-A
JAMB OR HEAD



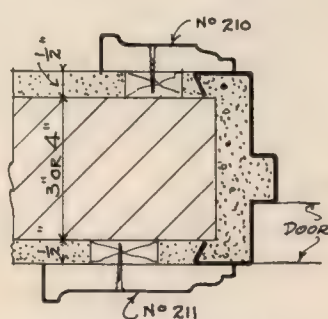
SECTION A-A
WITH FLUSH MOULDED CASING



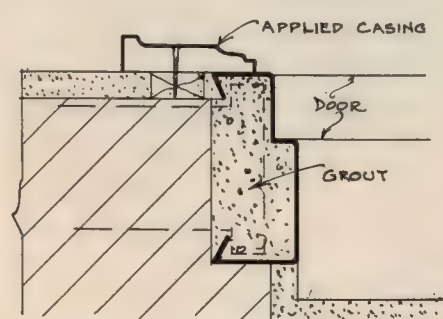
BUCK JAMB
IN THICK WALL



SECTION B-B
TRANSOM BAR



SECTION A-A
WITH APPLIED ARCHITECTURAL
CASINGS NO 210 OR 211



SECTION C-C
BUCK FOR RECESSED CABINETS

DETAILS OF KNAPP FLUSH STEEL DOOR BUCK
SHOWING ADAPTATIONS TO VARIOUS CONDITIONS

Section V

METAL CHAIR RAILS

Essential Information and Specification Data

FUNCTION AND MERIT

METAL chair rails like chair rails of other materials, were originally designed to prevent furniture from bumping against the wall. They are now more frequently used, however, to form the top of a wainscot. The chair rails herein illustrated are all erected before the plastering and the plaster finishes up to them making them sanitary, easy to clean and allowing no place for vermin to lodge. For this reason they are used in all classes of public buildings, including hospitals, schools, hotels, sanitariums, etc. They have been in use for fifteen years. Reference should also be made to Section VI in this handbook headed "Dado Moulds and Map Mould."

SPECIFICATIONS

Specifications should call for the chair rail by the numbers given in this handbook and should also specify the fittings desired as selected from this handbook. If convenient, a schedule of rooms or corridors wherein chair rail is to be used should be included in the plans or specifications, giving the exact height above the floor at which it is to be placed. Chair rail No. 299, being flush with the plaster, can be made in varying widths of exposed face. The standard width is $2\frac{1}{2}$ inches. Special widths are made to order.

KIND OF METAL AND GAUGE

U. S. Standard

All the chair rails illustrated herein are made of 20 gauge tight coat galvanized steel (hot process).

FINISH

All chair rails are delivered primed on the exposed surface with *Knapp Special Primer*. This primer adheres tightly to the metal and forms a base for any subsequent decoration. Decoration should be specified under painting and decorating as suggested for other items of trim.

FITTINGS

Corner fittings and end stops are provided for chair rails Nos. 300 and 301. No fittings are provided or are necessary for No. 299. The corner fittings for Nos. 300 and 301 are made for ordinary square corners, also for $\frac{3}{4}$ inch

radius and $1\frac{1}{2}$ inch radius bull nose outside corners and for $\frac{3}{4}$ inch radius and $1\frac{1}{2}$ inch radius inside cove corners. The end stop fittings are provided for terminal points. All fittings are made of the best grade of grey cast iron, sand blasted and dipped in protective paint. Splice plates are provided for chair rails Nos. 300 and 301, being used where two lengths of chair rail join.

ERECTION

Chair rails are erected before plastering and are nailed, or fastened, directly to the construction. The fittings are attached to the chair rails by frictional contact. The same methods of sawing are used as described for metal base.

STOCK LENGTHS

Chair rails are furnished in stock lengths of 10 ft. only.

MOULDING NO. 211 USED AS CHAIR RAIL

Refer to page 66, Section II, showing mould No. 211, there illustrated to be used as a base board. This moulding can also serve as a chair rail, and cast iron corner fittings and end stops are available when so used.

These fittings are as follows:

Patt. No. 350—Internal Square Cast Corner Fitting.

Patt. No. 351—External Square Cast Corner Fitting.

Patt. No. 322—End Stops (R and L) Cast Fitting.



Architect: Curran R. Ellis, Macon, Ga.

Photo illustration of No. 300 Chair Rail and Corner Fittings and Bull Nose Bead used in corridors of Boys' High School, Macon, Georgia. The chair rail furnishes a plaster ground for upper and lower wall spaces, and an ornamental separation between same.



ROXBURY HIGH SCHOOL, BOSTON, MASS.

Architect: Harrison H. Atwood, Boston, Mass.

(Reported to be the largest High School Building in America)

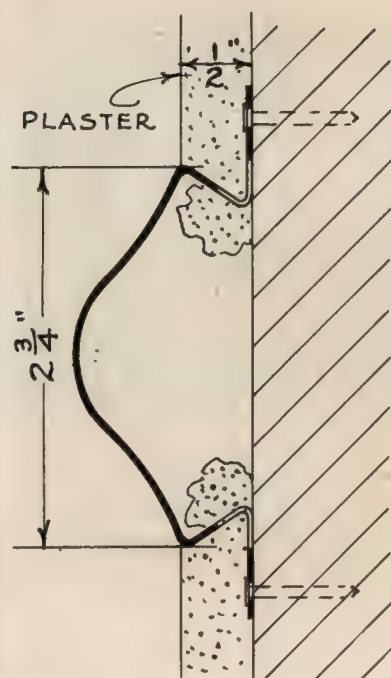
The following Knapp metal trim was used:

No. 204—6 inch Base.

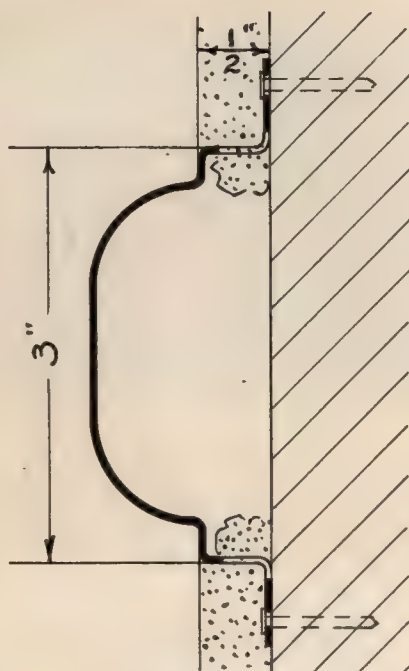
No. 300—Chair Rail.

No. 303—Chalk Trough.

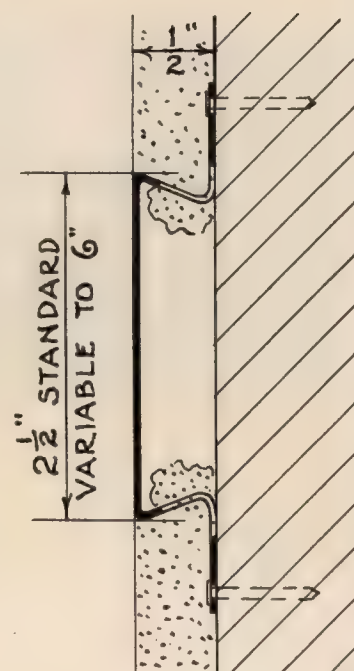
No. 25—Blackboard Mould (also used as a door trim).



No 300



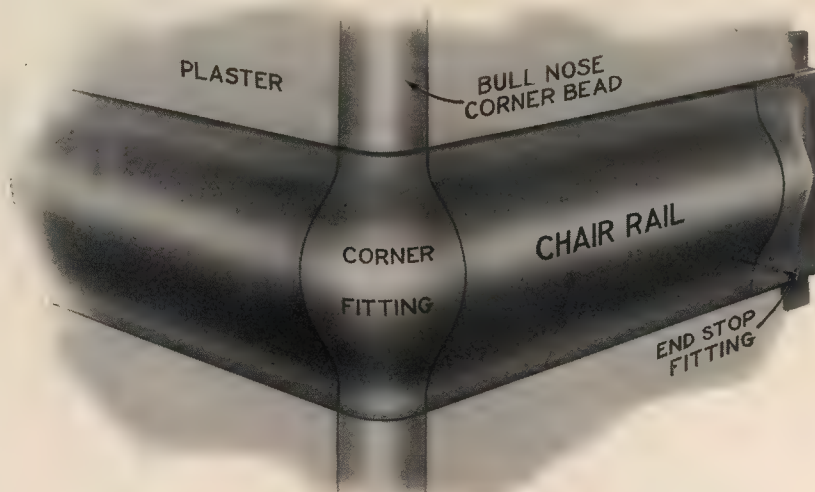
No 301



No 299

CHAIR RAILS

Chair Rails Nos. 300 and 301 types require corner fittings as illustrated herewith. For No. 299 type, no corner fittings are required. It is mitered on the job, same as wood trim. In addition to the double purpose of functioning as a chair rail and plaster ground, any of these three types also serve the purpose of a dado mould for the separation of wall spaces.



Other types of mouldings such as Nos. 210 and 211 shown on pages 38 and 66 may also be used as Chair Rails if so desired.



No. 300 — CHAIR RAIL FITTINGS

- Pattern No. **191** — Internal square corner fitting.
 Pattern No. **193** — Internal $\frac{3}{4}$ inch radius corner fitting.
 Pattern No. **195** — Internal $1\frac{1}{2}$ inch radius corner fitting.
 Pattern No. **192** — External square corner fitting.
 Pattern No. **194** — External $\frac{3}{4}$ inch radius corner fitting.
 Pattern No. **196** — External $1\frac{1}{2}$ inch radius corner fitting.
S P—Splice plate.
 Pattern No. **103L**—Left hand—end stop.
 Pattern No. **103R**—Right hand—end stop.



No. 301 — CHAIR RAIL FITTINGS

- Pattern No. **311** — Internal square corner fitting.
 Pattern No. **313** — Internal $\frac{3}{4}$ inch radius corner fitting.
 Pattern No. **315** — Internal $1\frac{1}{2}$ inch radius corner fitting.
 Pattern No. **312** — External square corner fitting.
 Pattern No. **314** — External $\frac{3}{4}$ inch radius corner fitting.
 Pattern No. **316** — External $1\frac{1}{2}$ inch radius corner fitting.
 Pattern No. **317L**—Left hand—end stop.
 Pattern No. **317R**—Right hand—end stop.

Section VI

DADO MOULDS AND MAP MOULD

Essential Information and Specification Data

FUNCTION AND MERIT

MOULDING No. 25 and Moulding No. 27 are frequently used in school buildings as dado moulds or wainscot caps, particularly in cases where a line of demarcation is to be made between two different materials. A variation of moulding No. 25 is also made, known as No. 25 1/2 designed so that maps or pictures can be suspended from it. Fittings to form corners and end terminals when these mouldings are used in this fashion are provided, all as herein illustrated. Reference should also be made to Section V in this handbook headed "Metal Chair Rails."

SPECIFICATIONS

Specifications should call for the mouldings by number given in this handbook and where possible, a schedule of the rooms or corridors in which they are to be used should be included in the plans or specifications and the fittings should also be specified. Care should be taken to show exactly where the No. 25 1/2 Map Moulding is wanted so that there will be no confusion on the job between this moulding and the regular No. 25.

KIND OF METAL AND GAUGE (U. S. Standard)

These mouldings are made from 20 gauge drawn steel.

FINISH

These mouldings are primed on all sides at the factory with *Knapp Special Primer* which adheres to the metal and forms a base for whatever subsequent finish is specified, and this finish should be included in the painting and decorating specifications.

WOOD GROUNDS

A wood ground is necessary for these mouldings.

FITTINGS

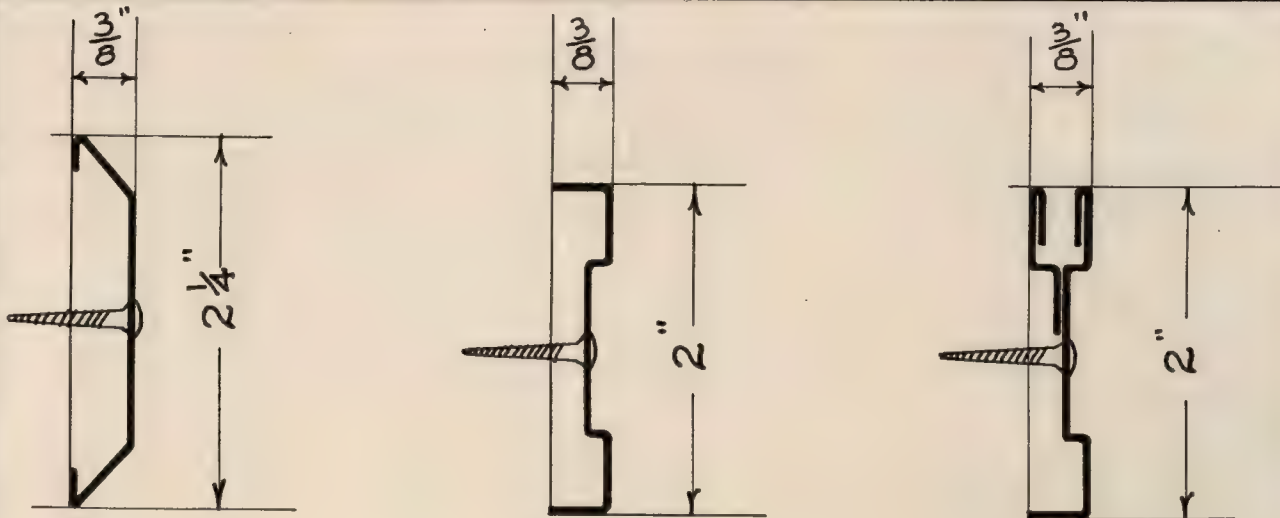
Fittings for square internal and external corners and for 3/4 inch radius cove corners are furnished for these mouldings. Also an end stop fitting for terminal points. These fittings are made of the best grade of grey cast iron dipped in a protective paint.

ERECTION

These mouldings and fittings are erected by the carpenter and should be placed in that specification. They are held in place by screws furnished with the mouldings. The mouldings are cut on the job with a hack saw in the same manner as heretofore described in this handbook for metal base and other items of metal trim.

STOCK LENGTHS

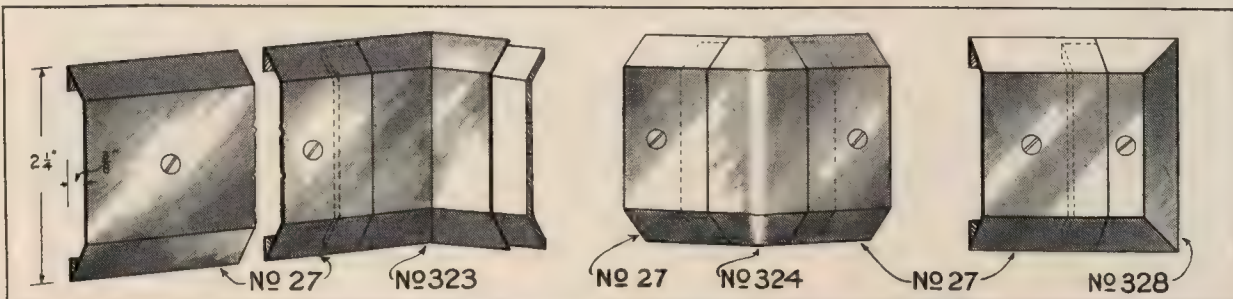
These mouldings are carried in 10 ft. lengths.



No 27

No 25

No 25 1/2



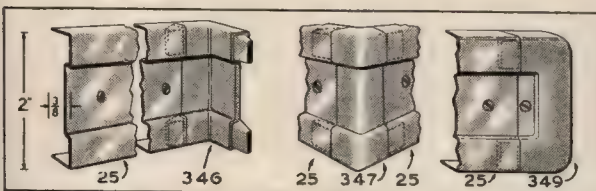
No. 27—Mould used as a dado mould—stock length 10 ft.

No. 27—Mould is also used for blackboards and bulletin boards (see pages 110 and 112) for illustration of corner fittings.

Pattern No. 323—Internal right angle (90°) corner fitting.

Pattern No. 324—External right angle (90°) corner fitting.

Pattern No. 328—End stop, interchangeable, right or left.



NO. 25—CORNER FITTING WHEN USED AS
DADO MOULD
Stock Length 10 Ft.

Pattern No. 346—Internal square corner fitting.

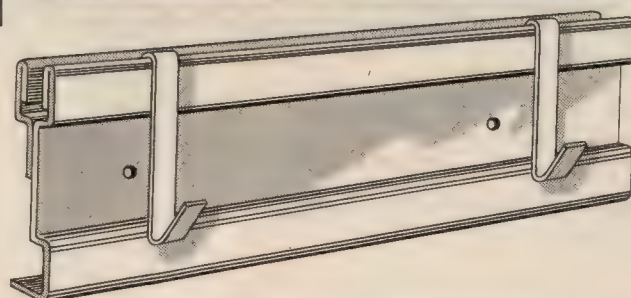
Pattern No. 347—External square corner fitting.

Pattern No. 348—Internal 3/4 inch radius corner fitting.

Pattern No. 219—External 3/4 inch radius corner fitting.

Pattern No. 349—End stop, interchangeable, right or left.

(Patterns in Black figures are illustrated. Those in Light figures are not shown here.)



ILLUSTRATING NO. 25 1/2 USED AS MAP
AND PICTURE MOULD

Section VII

METAL PICTURE MOULDS

Essential Information and Specification Data

FUNCTION AND MERIT

LIKE wood picture moulds, the metal mould is used primarily to support pictures and other hanging objects on walls and secondly to provide a dividing line at or near the ceiling for decorative purposes.

There are two types of metal picture moulds,—those which are erected before plastering and finish flush with the plaster and those which are put on after plastering in the usual manner.

Knapp Sanitary Flush Picture Moulds No. 23 and No. 20 have been on the market for about fifteen years. They provide a recessed groove formed at a proper angle to support a picture hook. They also are of themselves a screed to which the plasterer can work, giving a true ground line. They are ideal for all public buildings, especially hotels, hospitals and institutional buildings, because of their absolute sanitary feature. Being recessed into the plaster, there are no ledges to catch dirt. Being of metal, they will not house vermin. The recessed slot can be entirely filled with plaster if desired, cutting away the plaster in the groove only where a picture hook is to be set. The Style 20 is heavier than Style 23, and is designed to carry heavier weights.

The only applied-after-plaster picture moulding which is made at this time is the No. 208 which is a part of the ornamental applied trim system, other members of which are illustrated in other divisions of this handbook. This moulding is screwed to a wood ground and is erected after plastering. Reference should also be made to the No. 25½ Map Mould illustrated on page 103.

SPECIFICATIONS

Specifications should call for the moulding by the number given in this handbook. If convenient, a schedule of the rooms in which picture moulding will be used should be made a part of the plans or specifications and it should be designated as to how far below the ceiling the mould should be placed.

KINDS OF METAL and GAUGE
(U. S. Standard)

All metal picture moulds are made from extra tight coat galvanized steel (hot process).

Nos. 23 and 20 are made in 26 gauge. No. 208 is made in 20 gauge only.

FINISH

The exposed surface of No. 208 picture mould receives the *Knapp Special Primer* which adheres to the metal and forms a basis for subsequent decoration. The exposed face of the No. 20 mould can be decorated to give a double stripe appearance around the room. The No. 23 is practically invisible and is usually finished with the wall. The No. 208 would ordinarily be decorated the same as the other trim in the room.

WOOD GROUND

A wood ground is necessary only for the No. 208 type. The Nos. 23 and 20 are self-grounding.

ERECTION

The Nos. 23 and 20 should be put in the lathing and plastering specifications. They have been for many years erected by lathers, who are familiar and skilled in handling them. If the architect wants to keep the grooves free from plaster, it is well to specify that a cord or rope be placed in the groove before plastering. After plastering, this rope is removed and takes any accumulated plaster with it. The No. 208 is erected by carpenters and is screwed to wood grounds with oval headed screws furnished with the moulding.

FITTINGS

No corner fittings are provided for picture mould Nos. 20 or 23, as they are easily mitered or coped on the job. Splice plates are provided for No. 20. Cast iron end stops are available for mould No. 208.

STOCK LENGTHS

Picture moulds are furnished in stock lengths of 10 ft. only.



Photo illustration of school room showing Knapp No. 20 Picture Mould in position and section of same enlarged. In this photo Knapp Metal Base, Window Stool, Door Casing, Transom Casing, Chalk Trough, Blackboard Mould, and Bull Nose Corner Bead on Window Jamb are also in place.

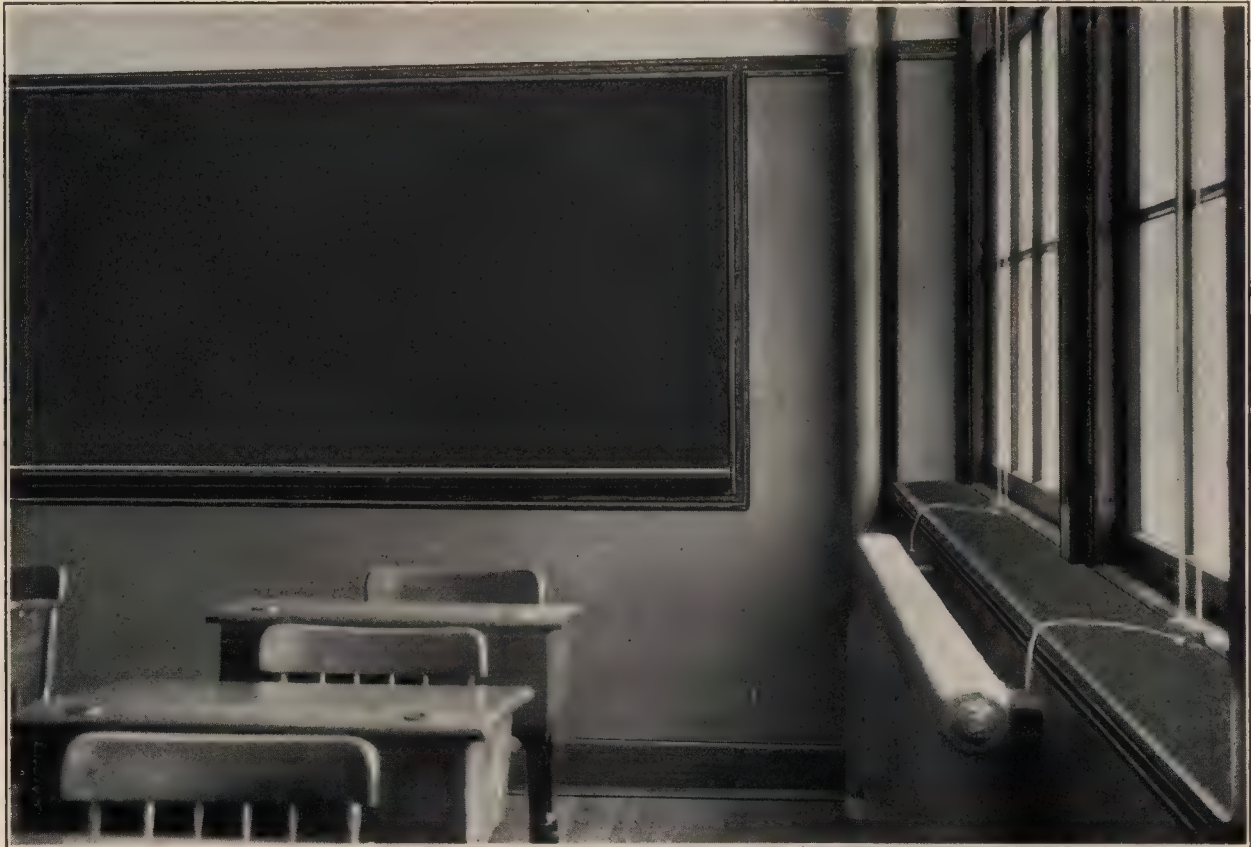


No. 20 "Royal" Picture Mould



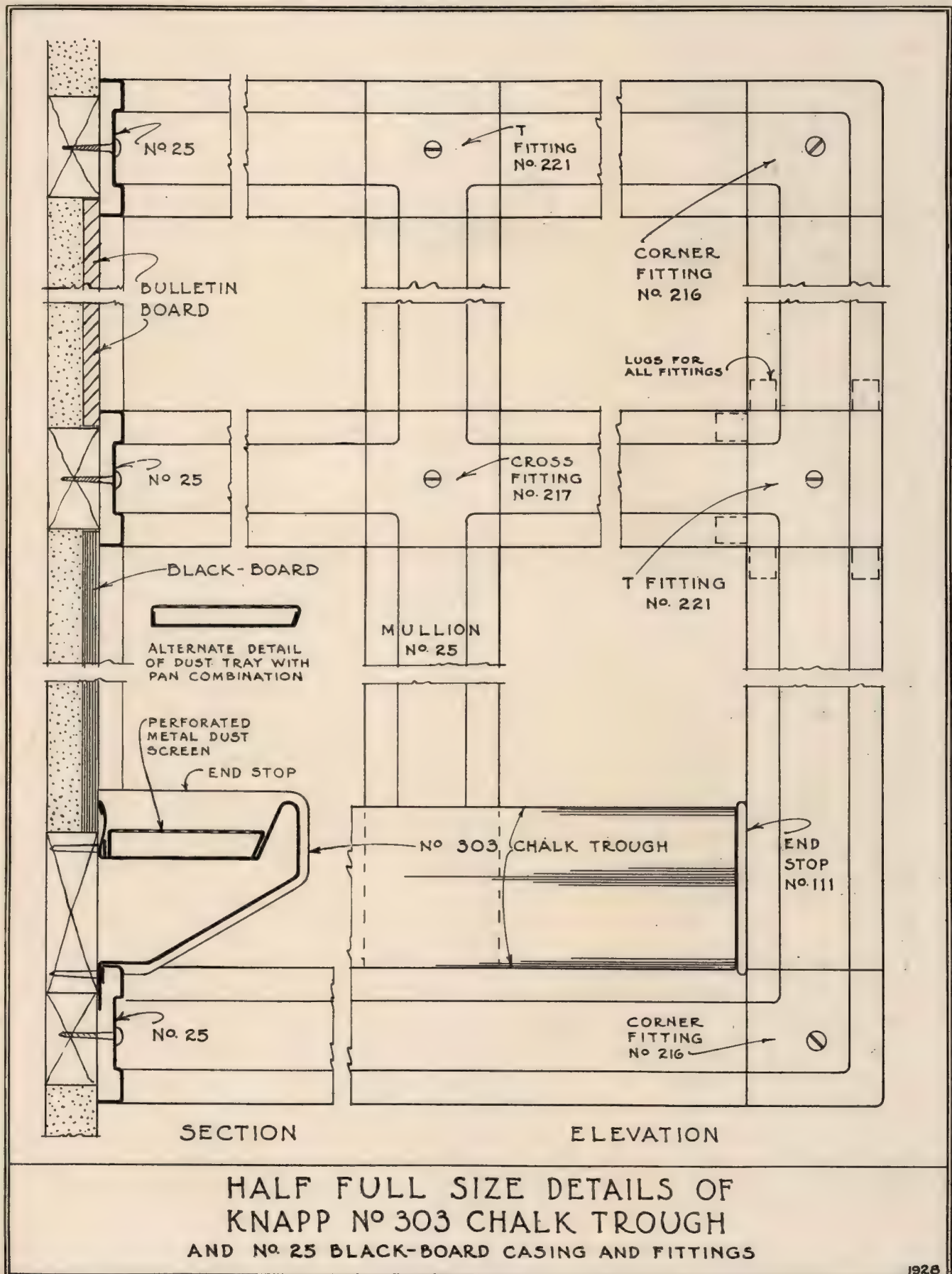
UNDERWOOD SCHOOL, NEWTON, MASS.

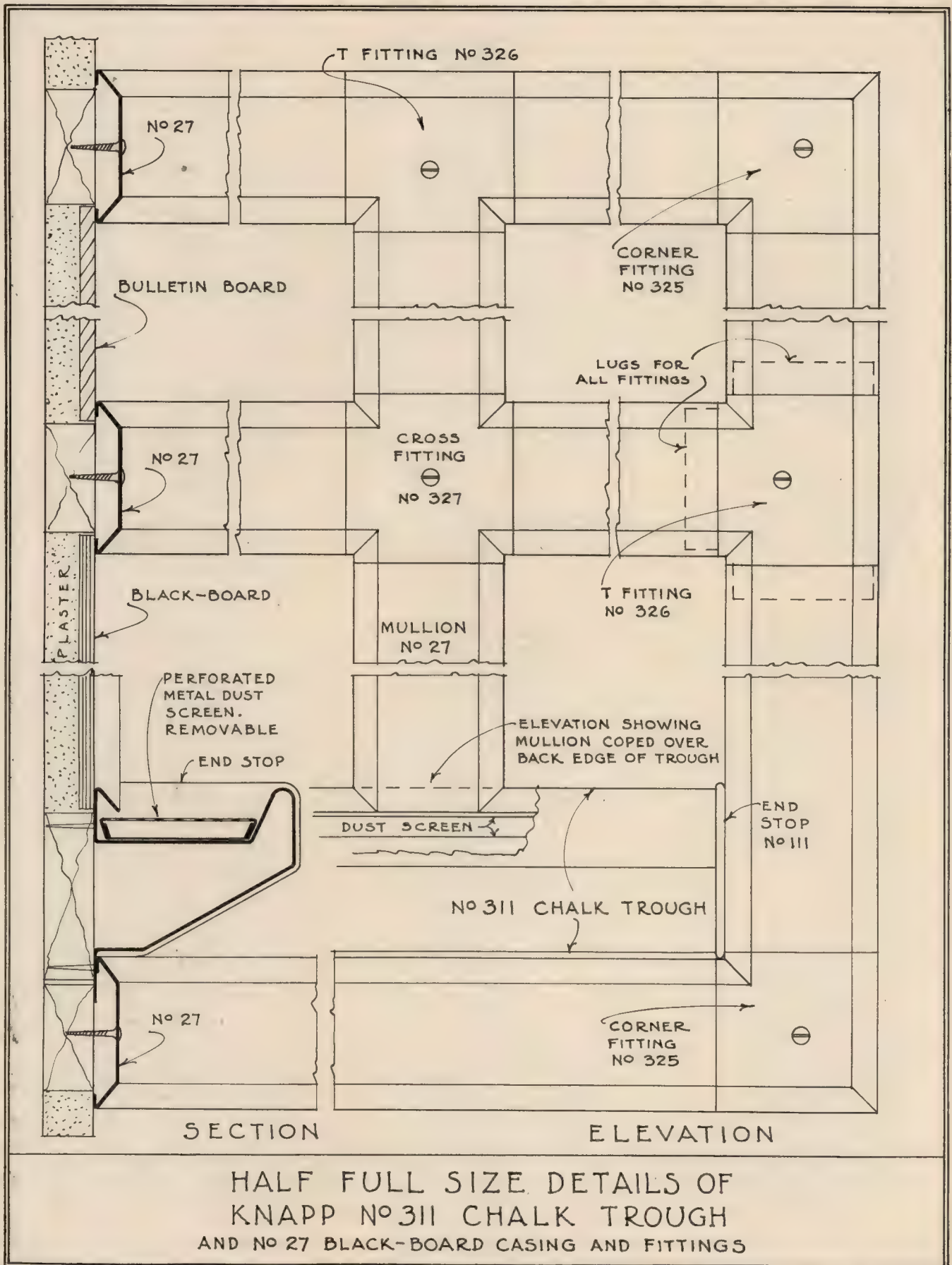
Architect: Herbert W. Colby, Boston, Mass. Metal Chalk Trough. Blackboard Mould and Base used in this building.

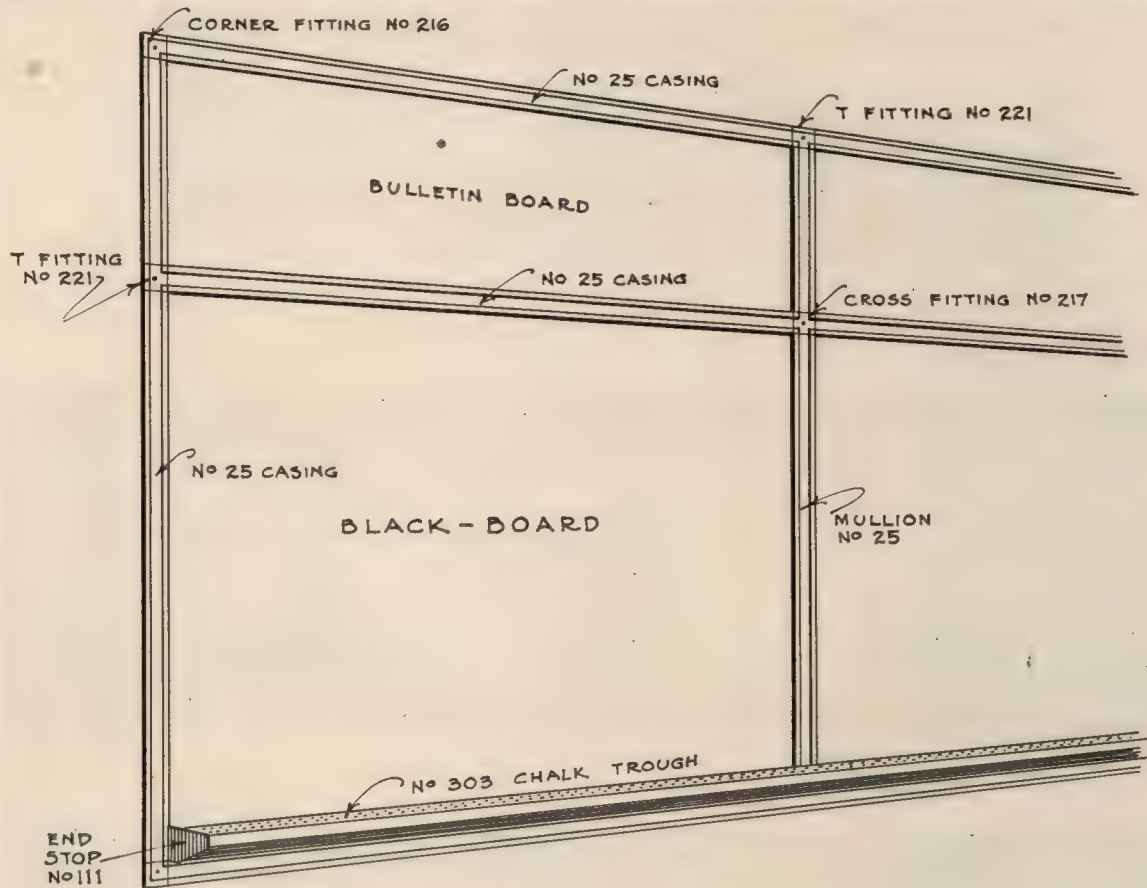


DORCHESTER HIGH SCHOOL FOR BOYS, DORCHESTER, MASS.

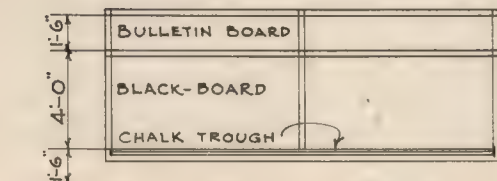
Architects: McLaughlin and Burr, Boston, Mass. Metal Window Stool, Base, Chalk Trough and Blackboard Mould used in this building.



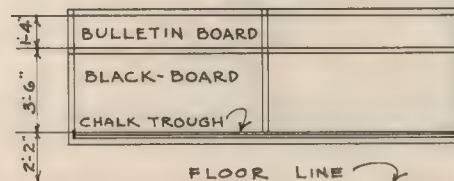




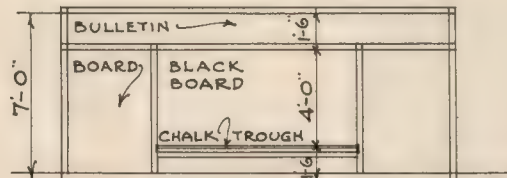
PERSPECTIVE VIEW OF TYPICAL BLACK-BOARD



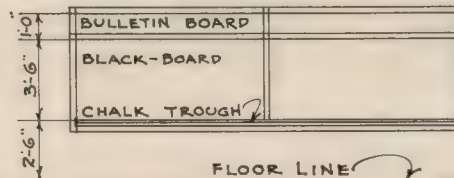
1ST, 2ND & 3RD GRADES



4TH TO 8TH GRADES



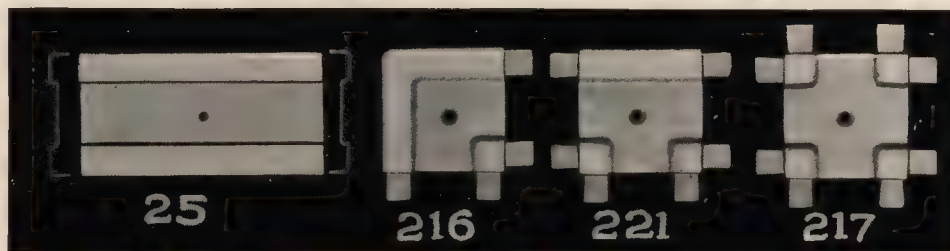
KINDERGARTEN



HIGH SCHOOL

DETAILS OF KNAPP METAL BLACK-BOARD TRIM
 No. 25 CASING AND No. 303 CHALK TROUGH
 WITH DIAGRAMS OF TYPICAL HEIGHTS FOR SCHOOLS

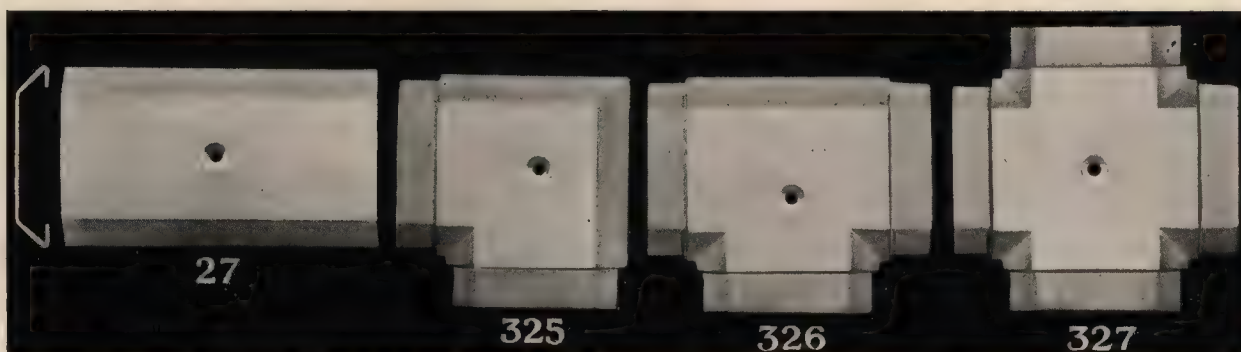
112—CHALK TROUGH AND BLACKBOARD MOULD FITTINGS



No. 25—BLACKBOARD MOULD CORNER FITTINGS

No. 25—Mould and cross section.
Pattern No. 216—Blackboard mould corner fitting.

Pattern No. 221—Blackboard mould T fitting.
Pattern No. 217—Blackboard mould cross fitting.



No. 27—Mould and cross section.
Pattern No. 325—Corner fitting.

Pattern No. 326—T fitting.
Pattern No. 327—Cross fitting.



No. 303—CHALK TROUGH FITTINGS

SP—Splice plate.
Perforated dust screen insert.

Pattern No. 111L—Left hand—end stop.
Pattern No. 111R—Right hand—end stop.



CHALK DUST-SCREEN-PAN
COMBINATION

Standard stock lengths, 3 ft., 4 ft. and 5 ft. Both ends of standard stock lengths will be closed. In fitting tray-pan to chalk trough, one end may have to be sawed off to make a close-fitting job. To remove accumulated chalk dust, merely lift out the stock length and empty the dust into a receptacle.

Section IX

METAL CORNER BEADS

Essential Information and Specification Data

FUNCTION AND MERIT

WHILE Knapp Metal Corner Beads have been in use for nearly a quarter century, their full function and importance is frequently overlooked. They were originally designed and intended merely to protect the plastered corner from chipping and were put on the lower 6 feet of a vertical corner.

Now it is recognized that corner beads not only perform the important duty of protecting the corner against chipping but by forming a straight rigid screed for the plasterer to work to, they are a labor-saving device and because this is so, corner beads are now universally used by all well-informed contractors. It is common knowledge to the trade that forming a corner in plaster, whether sharp or bull nose, is a time-consuming job for a skilled mechanic. Therefore it is an economy to use the Knapp Corner Bead on all plastered corners and for the full length, whether the corner is vertical or horizontal.

The bead selected, instead of being an unimportant item, is a very important one. Making a corner bead straight and accurate is not a simple process. It involves not only a knowledge of proper design and proper dies and machinery, but it also involves a particular kind of galvanized metal. The nose of the bead must be formed straight and the galvanizing must not be broken or distorted in the process.

Knapp Brothers Manufacturing Company were one of the very earliest pioneers in the manufacture of corner bead and are today the oldest makers of this article. Experience gained by their long and close contact with the field, has made them the leaders in this branch of manufacture.

The first beads made were the so-called "rail" type and consisted of a very narrow nose of metal held in place by long clinch clips.

Knapp Brothers' engineers early recognized the fact that a properly designed corner bead should not only have an accurately formed nose but should have supporting wings, rigid and not flexible, giving stiffness and support to the nose. Corner beads made from light 28 gauge sheets or corner beads without wings or with flexible wings, do not provide this necessary support. Therefore, Knapp Brothers now manufacture only the so-called "rigid wing" beads.

KINDS OF CORNER BEADS

Corner beads fall into two general classes, namely, small nose beads and bull nose beads. Small nose beads are Nos. 000, 101, 15½, 5 and 12. The Bull Nose beads are Nos. 604, 14½, 14, 600, 607, 603 and 609.

CHOICE IN SELECTING CORNER BEADS

Choice of corner beads should depend upon the construction of the wall, beam or partition upon which they are to be placed. For ordinary stud partitions with wood lath, small nose beads No. 000 or No. 101 are adequate. The wings of these beads are short.

For partitions or furred corners built of metal lath, Nos. 15½ or 5 are recommended, the wings being longer and having the edges scalloped, designed to give the maximum support during construction and after. The No. 15½ bead being made of 26 gauge, the wings are corrugated to give added stiffness.

For all kinds of masonry walls, columns or beams, (Gypsum Block, brick, tile or concrete) the No. 12 Bead known as Knapp "Ideal," and properly named, is superior to any bead on the market. The No. 12 Bead will allow a plumb straight line to be formed because this bead has a sufficiently long wing to attach to the irregularities common to masonry construction. It goes on quicker than any other kind of bead and will not be

pushed out of alignment. This bead is also designed so that plaster can get through the perforations and behind the bead forming a reinforcing for the whole corner. The use of this bead for all public or semi-public buildings is highly recommended.

In the bull nose field, the Nos. 604 and 607 type with the short wings, are designed for use on wood lath corners. The No. 14½ is designed for use on metal lath corners and the No. 14 is designed for use on masonry and has the same merits as No. 12. Nos. 600, 603 and 609 are heavy duty corner guards and are recommended for use in corridors and other places where an extra strong nosing is necessary.

MITER FITTINGS

When bull nose corner beads are used around window openings or door openings, they are either mitered on the job or a stamped steel miter fitting herein illustrated is used. For bull nose beads with a ¾ inch radius nose, the miter fitting is No. 599; for the 1½ inch radius nose bull nose beads, the No. 598 corner fitting is used.

CORNER BEAD CLIP

Where it becomes necessary on short flange beads to get a long purchase, Knapp Brothers "Hump" clip is the best device known. It is designed so the mechanic can slip it on to the bead rapidly and once on, it holds rigidly in place.

KIND OF METAL AND GAUGE (U. S. Standard)

All Knapp corner beads, except Nos. 609, 5 and 101, are made of 26 gauge extra tight coat (hot process) galvanized steel. This is not an ordinary galvanized steel but is made especially to meet the exacting conditions of the manufacturing processes. Nos. 101 and 5 are made of 24 gauge steel. Nos. 600 and 603 have a heavy reinforcing in the nose. No. 609 is a special very large radius bull nose bead and the nose is made of 16 gauge metal, the attaching wings being welded to the nose.

SPECIFICATIONS

Specifications should call for the specific corner bead desired by number given in this handbook and should state the exact places where corner beads are to be used. It is well to state that all external plaster corners, whether vertical or horizontal, are to have corner beads.

ERECTION

All corner beads should be placed in the lathing and plastering specifications. These are erected by lathers throughout the country, this trade being familiar with them and skilled in their erection.

STOCK LENGTHS

Corner beads are furnished in stock lengths of 6 ft., 7 ft., 8 ft., 9 ft., 10 ft. and 12 ft. No. 15½ and 000 are also carried in 8 ft. 6 inch lengths. No. 000 only is carried also in 11 ft. length.

INSIDE CORNER BEAD

Knapp Brothers manufacture a corner bead for inside corners. The function of an inside corner bead is the reinforcing of the plaster at this point and the providing of a screed edge for the plasterer to work to. Style 4½ illustrated herein is designed for this purpose. This bead is not necessary on metal lath or where a metal lath strip is used in the corner.



No. **000**—26 gauge, small nose, short flange corner bead. No. 101 is same as 000 except in 24 gauge.

Hump clip—Used with small nose corner beads Nos. 000, 101, 5, 15½ and bull nose beads 604 and 14½.

No. **15½**—26 gauge, crimped flange, scalloped edge corner bead.

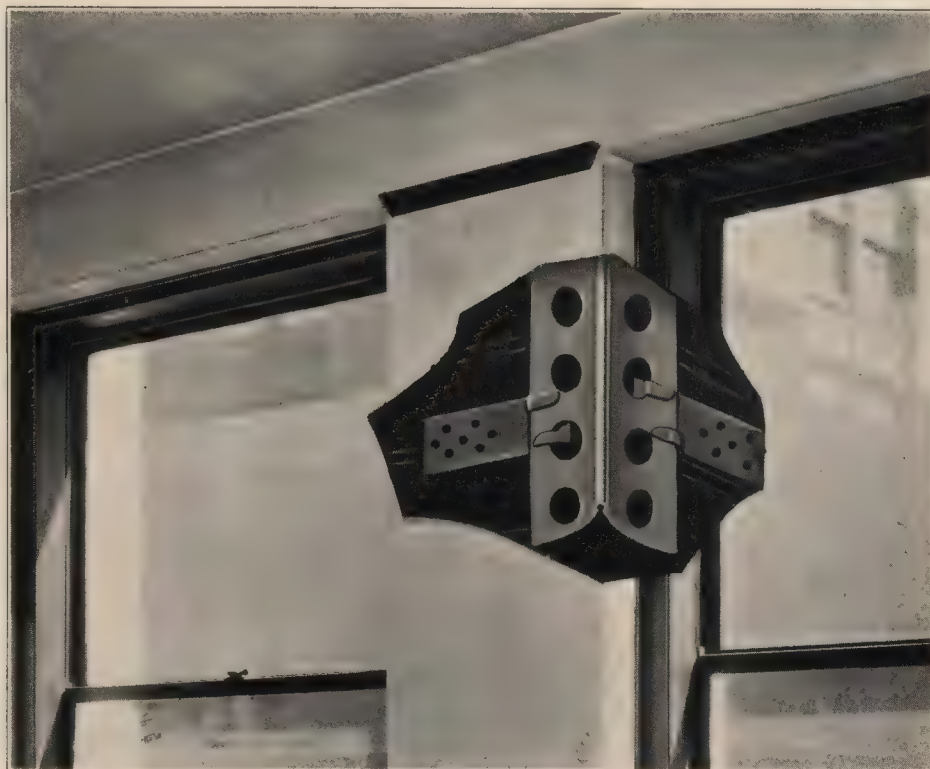
No. **5**—24 gauge, scalloped edge corner bead.

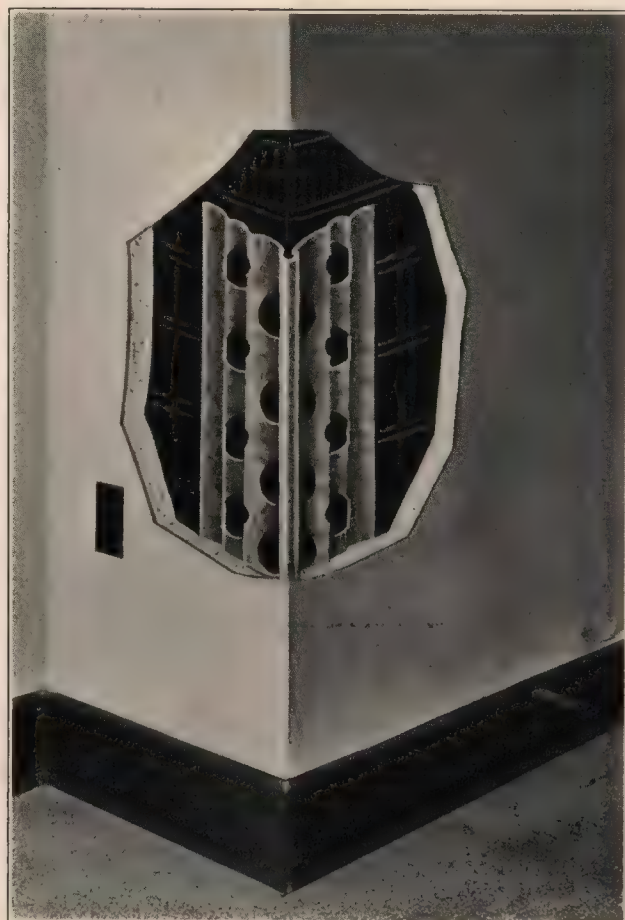
No. **12**—26 gauge, crimped flange corner bead.

ILLUSTRATING No. 000 WITH CLIP IN POSITION

The illustrated photo herewith shows how a short flange, small nose corner bead can be installed effectively by the use of our hump clip.

The clip itself being three inches long, and having seven nail holes provides ample means for securely fastening bead to wall. If walls are of concrete. The use of concrete steel hardened stub nails, made especially for this purpose is recommended.





(Right) Photo illustration $\frac{3}{4}$ inch radius No. 14 Bull Nose Bead.

No. 14 Bull Nose Bead is recommended to be used at all exposed plaster corners whenever a rounded corner is desired. It provides a straight-edge and a ground for plasterers to work to, on both wall planes. The wide, rigid flanges are a guaranty of stability. The flanges are $2\frac{1}{2}$ inches wide.

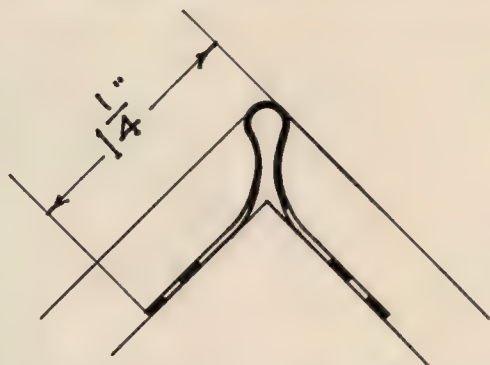
No. 600 Bead is the same as No. 14 except that the nose is reinforced.

KNAPP No. 12— IDEAL CORNER BEAD

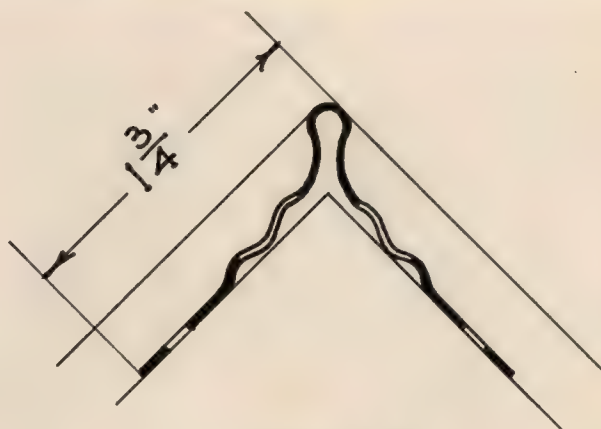
A Metal Corner Bead serves two fundamental principles, namely, it must function as a straight edge and it must protect brittle plaster at exposed corners.

No. 12 Corner Bead is so constructed that it serves both these purposes. It has a flange width of $2\frac{1}{2}$ inches and is crimped to make it rigid. It is perforated on the raised portion of the crimping so as to form a positive plaster key. These essential fundamental principles have earned for this type of corner bead the name of "Ideal".

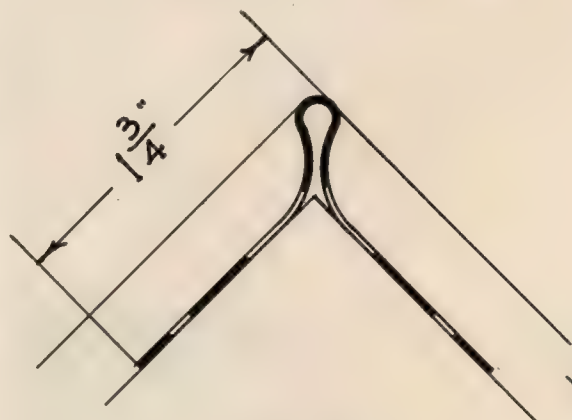




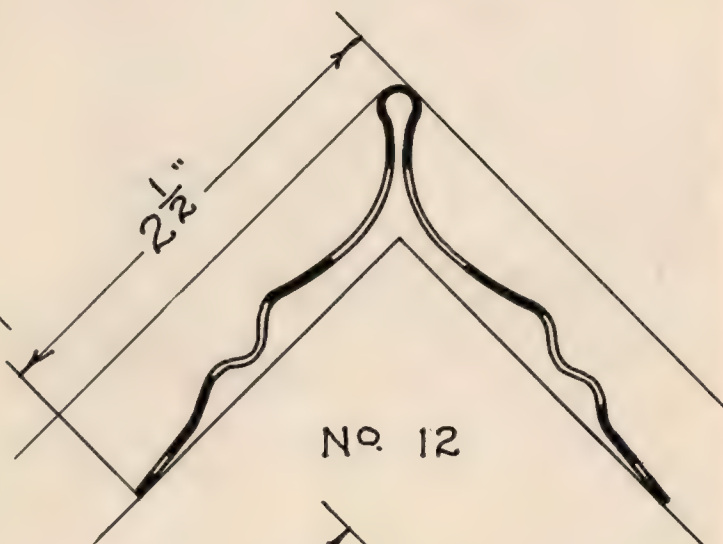
No. 000 26 GA.
No. 101 24 GA



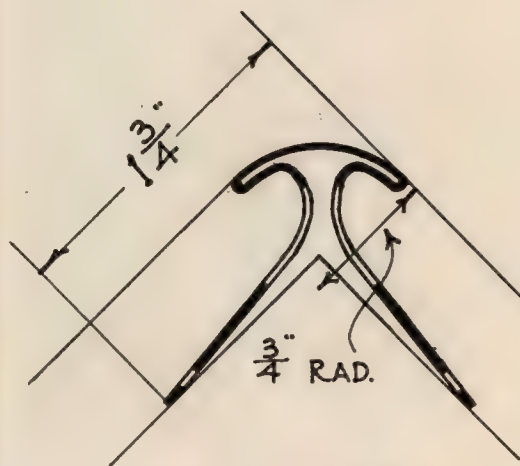
No. 15 $\frac{1}{2}$



No. 5



No. 12

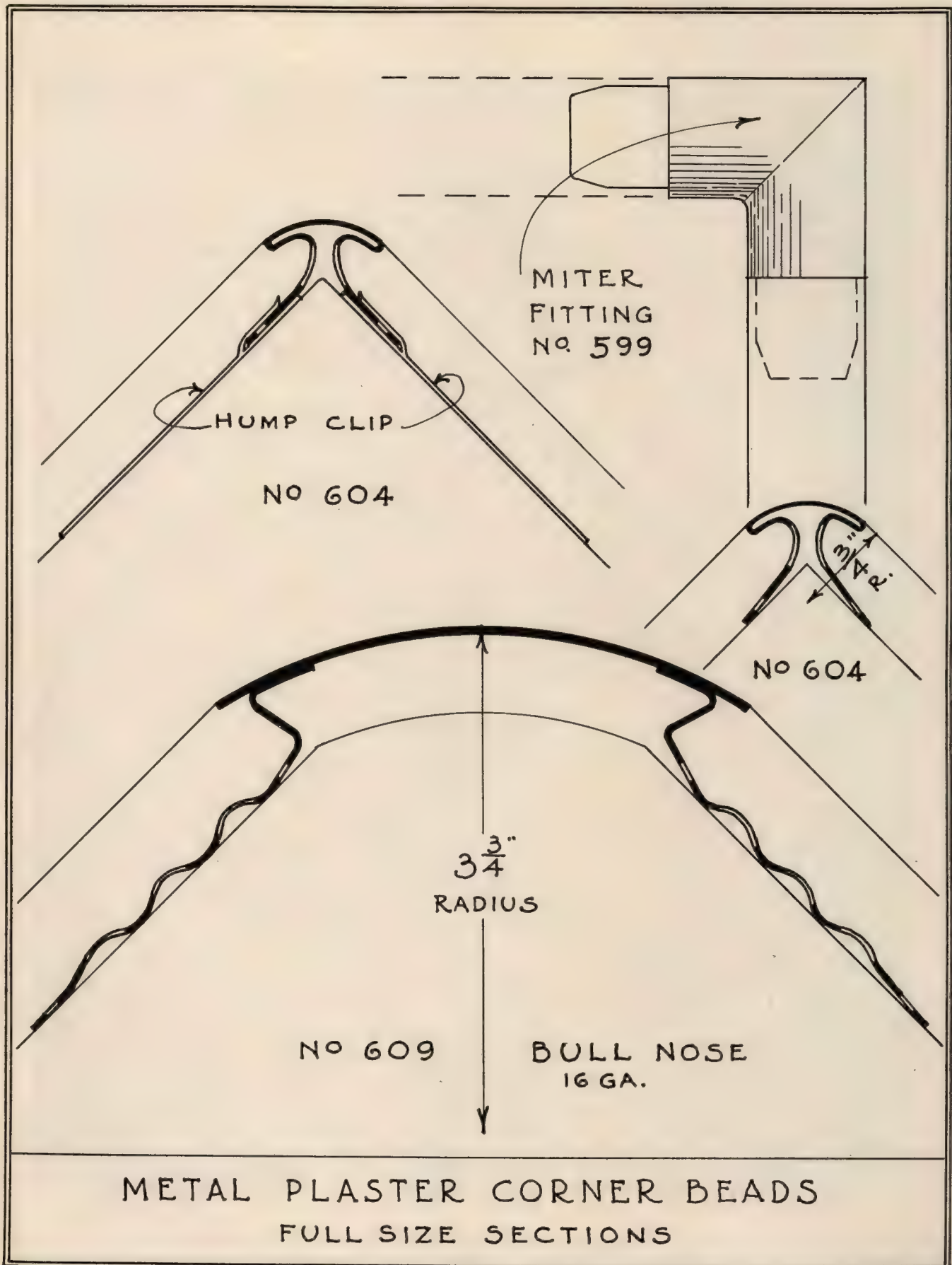


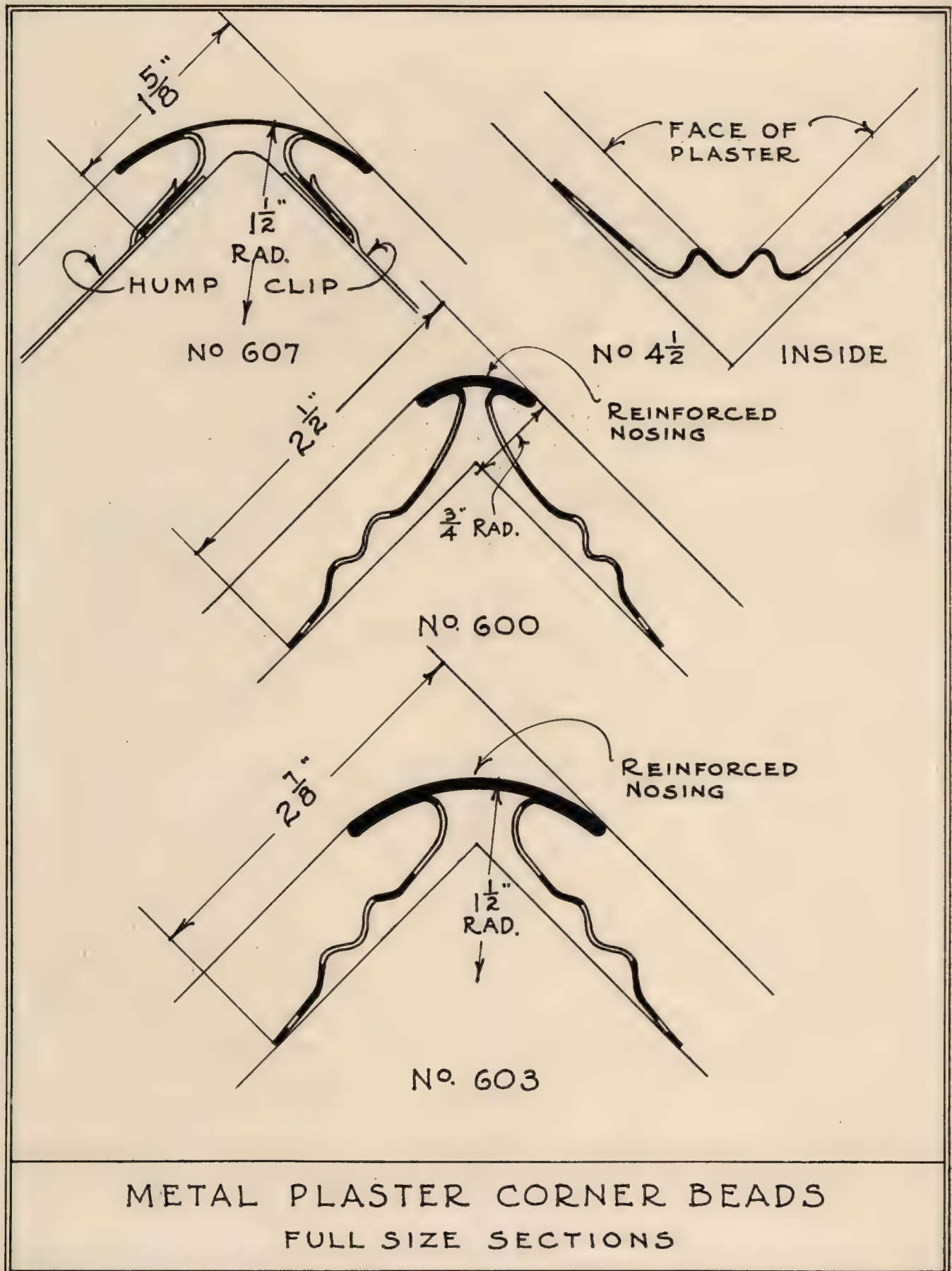
No. 14 $\frac{1}{2}$



No. 14

METAL PLASTER CORNER BEADS
FULL SIZE SECTIONS







Section X

METAL BASE GROUNDS AND SCREEDS

Essential Information and Specification Data

METAL base grounds and screeds have been used for a great many years for the purpose of separating two plastic materials of different character, such as separating plaster walls from cement, terrazzo or composition base, and separating a cement wainscot from ordinary plaster. Another function of these devices is to give a permanent straight edge to which both the trades work. They make unnecessary the old method of putting up a temporary wood ground and then tearing it off and patching the plaster. This is a decided saving in direct cost. These grounds and screeds are particularly valuable in cases where composition bases are used, as these composition materials and plaster do not affiliate chemically and bad staining of the plaster occurs unless adequately and completely separated.

The base grounds finish flush with the wall surface and the base screeds allow the base material to be in projection from the wall surface. The base screeds also form a protection against chipping the top of such projecting cement, terrazzo or composition bases.

Fittings forming the corners and terminating points for these grounds and screeds are herein illustrated.

SPECIFICATIONS

Specifications should call for the ground or screed by the number given in this handbook. The flush grounds are Nos. 1, 1½, 2 and 3 and the projecting base screeds are Nos. 42 and 49.

KIND OF MATERIAL USED AND GAUGE (U. S. Standard)

All base grounds and screeds are made of 26 gauge extra tight coat galvanized steel (hot process), except No. 1½, which is made of 24 gauge but is in other respects the same as No. 1.

FITTINGS

The fittings illustrated are made of the best grade of grey cast iron, sand blasted and dipped in protecting paint. External screed corner fittings are designed for square nose corners, ¾ inch radius Bull Nose corners or 1½ inch Bull Nose corners. Internal screed corners are likewise furnished for square, ¾ inch or 1½ inch coves. For the flush grounds the same corner fittings are furnished except in the square type, because it is standard practice for lathers to bend by hand flush grounds on square or sharp corners. End stop fittings are used to terminate the screeds at doorways.

ERECTION

Base grounds and screeds are erected by lathers. They are blindnailed to wood stud or masonry walls or when used on metal lath partitions, are wired to the construction. Ordinary care should be used to see that they are in straight alignment and at the proper height desired above the floor. A nail with the head taken off and slipped in

behind the nose of the ground serves as a splice plate between lengths. Problems of erection are very simple and are commonly known to the trade.

FINISH

The exposed face of No. 42 Screed is primed with *Knapp Special Primer* at the factory. In the case of the other screed and grounds, so little metal is exposed that no primer is necessary. This primer dries hard and adheres tenaciously to the metal and becomes the base for subsequent decorations.

CLIPS

When erecting No. 49 Screed, it is sometimes necessary to use a clip in order to obtain a longer reach to a nailing point than is afforded by the flange of the screed. For this purpose, No. 49 Screed clip is used.

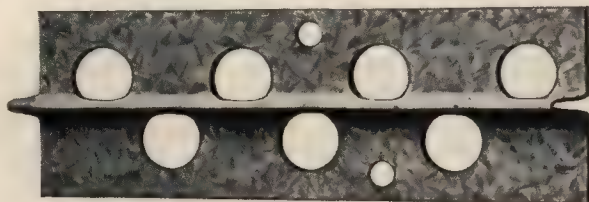
THICKNESS OF PLASTER

It will be noted that the base grounds are made for three different plaster ground thicknesses, namely, ½ inch, ⅝ inch, and ¾ inch. Base screeds are made only for ½ inch thickness of plaster. Because of the normal irregularity in masonry walls or partitions, it is best to use the ½ inch ground and wedge it out where required for heavier ground thicknesses. Specifications should mention the thickness of plaster ground.

STOCK LENGTHS

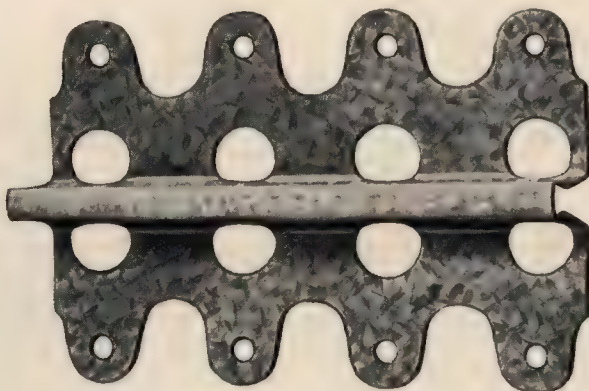
Base grounds and screeds are made in standard lengths of 10 feet.

STOCK LENGTHS 10 FT.



No. 1—FLUSH GROUNDS—26 gauge GALVANIZED
No. 1½—FLUSH GROUNDS—24 gauge GALVANIZED

These grounds form a permanent separation between two different plastic materials as in the case of terrazzo, composition or cement base and plaster.



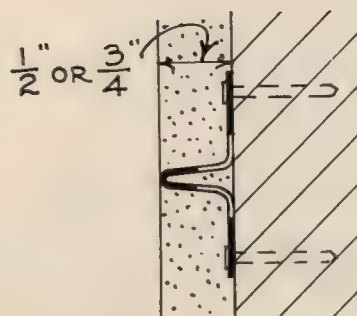
No. 2—FLUSH GROUNDS—26 gauge GALVANIZED
(Scalloped Edge)

They are also used as a protecting border bead in the case of depressed or raised plaster panels.

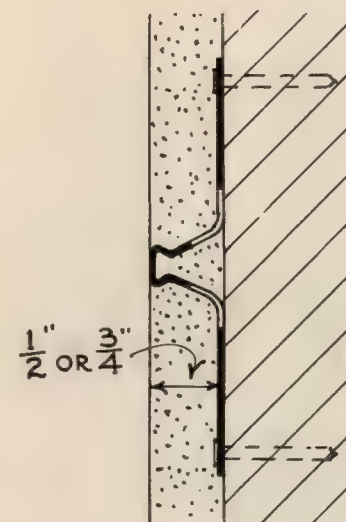


No. 3—FLUSH GROUNDS—26 gauge GALVANIZED
(Straight Edge)

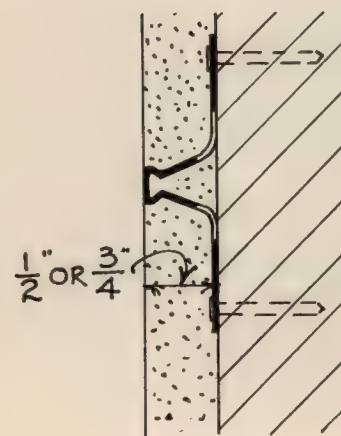
They prevent contact between non-affiliating chemical constituents and therefore prevent staining. They eliminate the necessity for temporary wood grounds and ninety per cent of the ordinary plaster patching.



No 1 26 GA.
No 1½ 24 GA.



No 2



No 3

All illustrations on this page are three-fourths natural size.



CORNER FITTINGS FOR No. 1, No. 1½, No. 2 and No. 3 GROUNDS

Pattern No.	160	—External	¾	inch radius corner fitting.
Pattern No.	82	—External	1	inch radius corner fitting.
Pattern No.	62	—External	1½	inch radius corner fitting.
Pattern No.	60	—External	2	inch radius corner fitting.
Pattern No.	159	—Internal	¾	inch radius corner fitting.
Pattern No.	81	—Internal	1	inch radius corner fitting.
Pattern No.	61	—Internal	1½	inch radius corner fitting.
Pattern No.	59	—Internal	2	inch radius corner fitting.



No. 1 BASE GROUND

This type of Metal Base Ground is the most economical and effective method of separating a composition base from plaster wall. On account of the chemical action a positive separation is necessary.



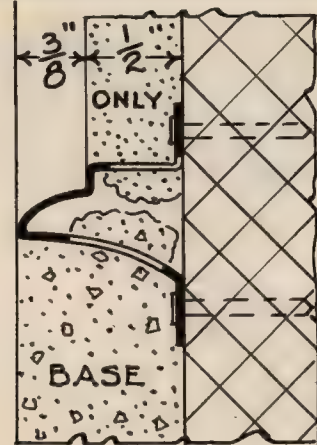
No. 2 BASE GROUND

The essential feature of this type of Base Ground is a ¼ inch flat nose, giving both a distinct separation between composition base and plaster wall and also featuring a desirable color decorative border.

STOCK LENGTHS—10 FT.



NO. 49 CURVED POINT BASE SCREED—26 GAUGE GALV.



CROSS SECTION
FULL SIZE



FITTINGS FOR No. 49 BASE SCREED

- | | |
|------------------|--|
| Pattern No. 179 | —Internal square corner fitting. |
| Pattern No. 181 | —Internal $\frac{3}{4}$ inch radius corner fitting. |
| Pattern No. 183 | —Internal $1\frac{1}{2}$ inch radius corner fitting. |
| Pattern No. 180 | —External square corner fitting. |
| Pattern No. 182 | —External $\frac{3}{4}$ inch radius corner fitting. |
| Pattern No. 184 | —External $1\frac{1}{2}$ inch radius corner fitting. |
| Pattern No. 266L | —Left hand—end stop. |
| Pattern No. 266R | —Right hand—end stop. |
| No. 49 Clip | —Clip for No. 49 Base Screed. |

These screeds form a smooth even curved top for any projecting plastic base material such as terrazzo, cement or composition and protect the top of the base against damage by chipping.

They also, like the flush type of grounds, form a permanent separation between the two materials, and a working ground line for both.



NO. 42 CURVED POINT BASE SCREED—26 GAUGE GALV.



CROSS SECTION
FULL SIZE



No. 42 BASE SCREED

- Pattern No. **185** —Internal square corner fitting.
 Pattern No. **187** —Internal $\frac{3}{4}$ inch radius corner fitting.
 Pattern No. **189** —Internal $1\frac{1}{2}$ inch radius corner fitting.
 Pattern No. **186** —External square corner fitting.
 Pattern No. **188** —External $\frac{3}{4}$ inch radius corner fitting.
 Pattern No. **190** —External $1\frac{1}{2}$ inch radius corner fitting.
 Pattern No. **264L**—Left hand—end stop.
 Pattern No. **264R**—Right hand—end stop.
 Pattern No. **236R**—Right hand plinth for all O. G. type casing and No. 42 Screed (6 inch cement base).
 Pattern No. **236L**—Left hand plinth for all O. G. type casing and No. 42 Screed (6 inch cement base).

The use of corner fittings for both types, No. 49 and No. 42, not only make a much better installation but contractors generally concede that it is economy to use them instead of mitering the corners on the job.

When placing an order for corner fittings, discretion must be used in ordering the type that will fill the required need.



ABOVE—No. 42 BASE SCREED SHOWING EXTERIOR SQUARE AND INTERIOR SQUARE CORNER FITTINGS ATTACHED



AT LEFT—No. 42 BASE SCREED

No. 42 type of Base Ground is recommended where the cement or composition base projects from the plaster wall plane. The photo illustration to the left shows an exterior corner fitting in combination with a $\frac{3}{4}$ inch radius bull nose bead.



Essential Information and Specification Data

LINOLEUM GROUND

STOCK LENGTHS 10 FT.

FUNCTION AND MERIT

There are some cases when linoleum or other like materials are used as a floor covering, where it becomes desirable to omit a base board entirely and turn the floor covering up on the wall for 5 or 6 inches.

This method of construction is desirable when a cove of exceptionally large radius (3 inches or more) is wanted to keep beds or furniture well away from walls.

The problem of getting a sanitary yet practical method of holding the top edge of the linoleum to the wall is satisfactorily solved by Knapp Linoleum Ground. This ground can also serve in a similar manner as the frame for a flush bulletin board, tack board, blackboard or panel.

HOW TO USE GROUND NO. 440 AND INSERT NO. 441

Reference to the illustrations will show this ground to be made in two pieces, a ground member and a removable insert, (Nos. 440 and 441.) The ground member (with insert left in place to keep plaster out of the groove) is erected on the wall or partition before plastering, in the same manner as our regular No. 1 flush ground. When used as the top edge of a linoleum base, care must be taken to have it at a uniform height above the floor and in straight and parallel alignment therewith. As linoleum needs a solid backing to which it can be glued, such a backing must be provided. If the floor is cement, this backing can be run in cement (see illustration) or if the floor is of wood, a wood cove backing can be used.

The linoleum is turned up on the wall over the backing and glued thereto, the same as to the floor, the top edge being trimmed off to the ground line. The insert (No. 441) which is temporarily removed after plastering is then replaced and is held by tight friction close against the linoleum. At corners and angles the linoleum has to be cut out from the continuous strip and pieced back to fit. Skilled linoleum workers accomplish this easily and satisfactorily.

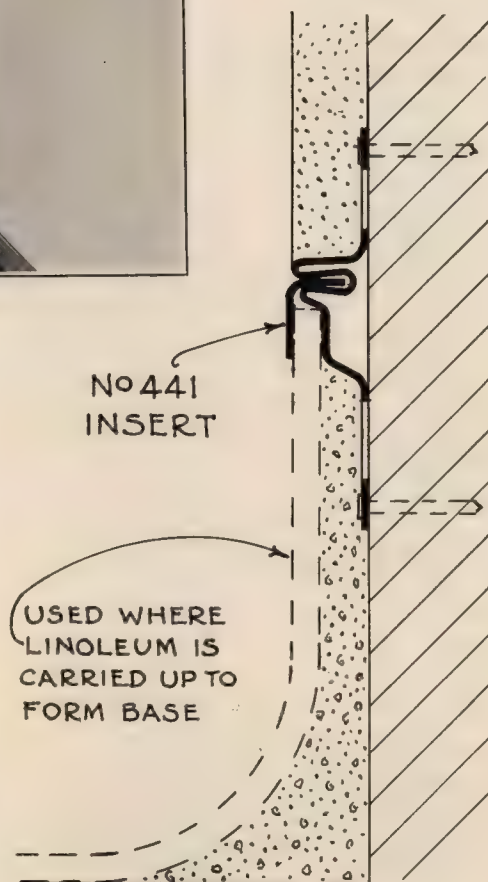
This ground is similarly erected when used as a frame for bulletin boards, etc.

FITTINGS

No fittings are furnished with this ground. The ground member is mitered at corners. The insert can be kerfed and bent around corners.

KIND OF METAL

The ground proper is made of 24 gauge extra tight coat galvanized (hot process) steel, whereas the insert is made of 20 gauge. The insert is required to be rigid and is formed at slightly less than a right angle so as to contact the linoleum after it is inserted and tapped tightly in place.



No 441
INSERT

USED WHERE
LINOLEUM IS
CARRIED UP TO
FORM BASE

No 440 LINOLEUM BASE GROUND

TREATMENT AT DOOR-WAYS

As linoleum can only be bent to a relatively large radius, the cove formed at the floor angle must be terminated far enough back from the door-way so as not to interfere with the opening of the door. This is usually done by returning the cove on itself about 6 inches back from the door opening.

FINISH

The face of the insert strip is primed at the factory with *Knapp Special Primer*. This strip is usually decorated by the painter on the job to match the linoleum. The primer forms a base coat for this decoration.

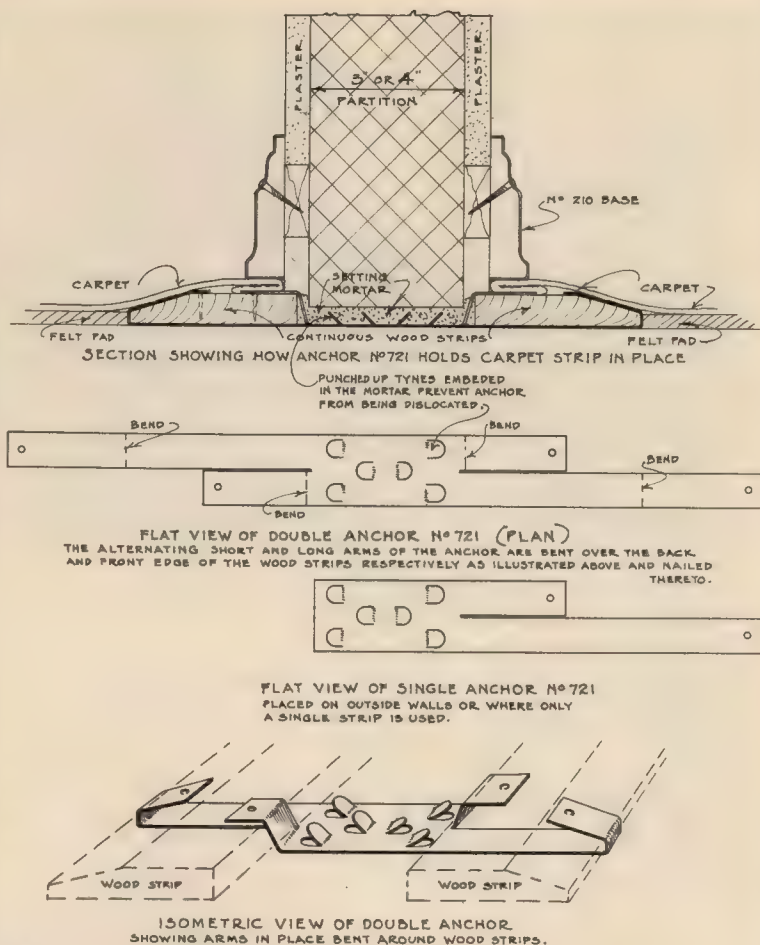
FUNCTION AND MERIT

In modern fireproof hotels where floors are carpeted, wood carpet tack strips are necessary around the perimeter of each room.

It is no longer necessary to fasten these strips by the expensive process of drilling the concrete floor and putting in expansion bolts, nor by the infinitely more expensive method of embedding the wood strips in a floor fill.

The Knapp Carpet Strip Anchor No. 721 is a device which eliminates all difficulty connected with holding wood tack strips to masonry floors.

The process is simple, easy and inexpensive. The double anchors are used where carpet strips are used on both sides of the partition; the single anchors are used for outside walls or where carpet strip is on one side of partition only and these are merely placed on the floor, embedded in mortar and the partition or wall built thereon. For convenience, it is suggested that the short arm of the



ILLUSTRATING CARPET STRIP INSTALLED READY FOR CARPET AND BASE
(Taken from the New Palmer House, Chicago—Holabird and Roche, Architects)



ILLUSTRATING MANNER OF INSTALLING CARPET STRIP ANCHOR No. 721

carpet strip anchor be bent at right angles before laying it upon the floor on the chalk line, where the partition is intended to be placed. Just as soon as the partition is in place, the wood tack strip may be installed. This strip may be made from a 1x4 soft pine planed and beveled strip as indicated in the illustration.

The tack strip is laid down on the floated floor and against the partition, the short arm is bent up and over the under edge of the wood strip and nailed, whereas the long arm is bent over the outer edge and also nailed. This work is easily and quickly done. These Carpet Strip Anchors are placed from 18 inches to 2 feet apart.

Where a threshold is used and the carpet does not pass from one room to another, the tack strip itself is carried by the doorway the same as around the room, but is plugged into the cement floor, if necessary, at this point only, merely to hold it rigid where it cannot be held

by anchors. (See illustration on preceding page.)

Where the carpet extends from one room to another, and the threshold is not used, the strip is left out and padding as well as carpet carried through the opening.

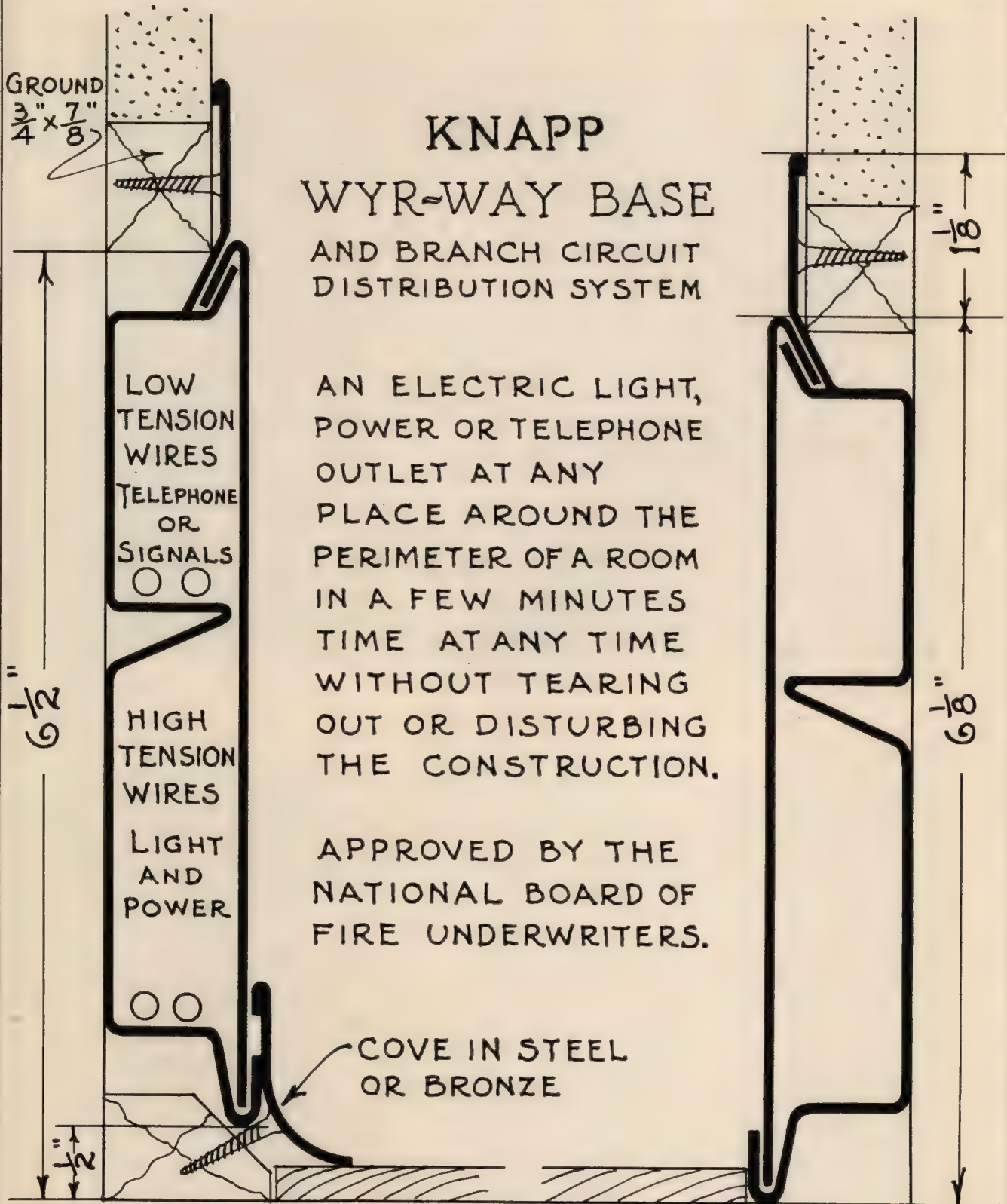
The Carpet Strip Anchor is made of galvanized steel, 24 gauge material, strong enough to securely hold the wood tack strip and pliable enough to adjust itself readily to bending.

The portion of the anchor which is embedded under the partition is perforated for a plaster key. Nail holes are punched in the arms for fastening onto the wood tack strip. This device has a further advantage in that if the partition should ever be removed or its position changed, there would be no holes left in the finished concrete floor surface. Many of the best hotels in Chicago and elsewhere have used Knapp No. 721 Carpet Strip Anchor with gratifying results.

KNAPP WYR-WAY BASE AND BRANCH CIRCUIT DISTRIBUTION SYSTEM

AN ELECTRIC LIGHT,
POWER OR TELEPHONE
OUTLET AT ANY
PLACE AROUND THE
PERIMETER OF A ROOM
IN A FEW MINUTES
TIME AT ANY TIME
WITHOUT TEARING
OUT OR DISTURBING
THE CONSTRUCTION.

APPROVED BY THE
NATIONAL BOARD OF
FIRE UNDERWRITERS.



FULL SIZE SECTIONS OF WYR-WAY BASE

KNAPP WYR-WAY BASE

Conduo-Base as Manufactured by Knapp Bros. Mfg. Co.

BRANCH CIRCUIT DISTRIBUTION SYSTEM

(Patented Nov. 28, 1922 and Dec. 21, 1926, other patents pending)

What It Is

An electrical distribution system consisting of two raceways, one for high and one for low tension wires, concealed in a metal base and provided with an easily removable cover.

The accessories necessary to facilitate economic installation and provide a continuous system consist of flush plates, universal junction boxes, outlet junction boxes, adjustable junction plates, wire holders and corner fittings.

What It Does

Provides for adequate branch circuit wiring for present and future needs. Provides metal base with its attendant advantages. Eliminates or reduces to a minimum the use of underfloor duct. Adjusts itself to the regular construction routine. Gives the outlet flexibility demanded by modern tenants. Provides means for establishing new electrical outlets at any point around a room in a few minutes' time without tearing out any construction or interfering with any decorations.

What It Costs

The cost of Wyr-Way Base will be surprisingly low when the savings it accomplishes are properly considered. It is suggested that to find the actual cost on any specific building a preliminary set of the drawings be submitted to the Companies' engineer who will be glad to submit an estimate from which comparisons can be made.

It may be safely stated that barring exceptional conditions the cost of Wyr-Way Base should not exceed a dollar a foot installed including all the junction boxes and appurtenances and this cost may conceivably be much lower in large installations.

BRANCH CIRCUIT DISTRIBUTION LAYOUTS

Modern use of electrical appliances and lighting such as desk lamps, electrically operated office appliances, telegraph call system, buzzer systems, inter-communicating telephone systems, bell telephone system, master clock time systems, and other special high or low tension electrical systems, has created a branch circuit distribution problem for those responsible for the construction of modern buildings.

In office buildings where partitions are not predetermined and in cases where a rearrangement of partitions is necessary, the problem is especially acute, and resolves itself into the necessity of creating a flexible branch circuit distribution system that will permit the use of electrical appliances using high tension or low tension electrical energy at all convenient locations in office spaces. This must be done without knowing the location of the partitions.

The following paragraphs with the assistance of the figures on the opposite page shows by comparison how Knapp Wyr-Way Base may be used to good advantage in office spaces. Figure 1 shows a plan and Figure 1-A a section of a branch circuit distribution system sometimes used. Figure 2 shows a plan and Figure 2-A shows an elevation of Knapp Wyr-Way Base Branch Circuit Distribution System. Figure 3 shows another application of the Knapp system.

Referring to Figure 1 on the opposite page, you will note that the home run is shown as running to the special ceiling box which is part of the ovalduct distribution system. This gives a little flexibility with reference to ceiling lights, because at any time the location of these lights may be changed by channeling in the plaster from one of these special ovalduct boxes to the new one in a new location, and this channeling may be easily repaired.

The low tension distribution is accomplished by means of the underfloor duct system and a low tension lateral terminating in a cabinet placed at the base of the outside wall in each room. The low tension wires may then be distributed through a 4-piece wood base erected so as to permit a wire space behind a rabbeted wood cover held in place by a wood screw. Corridor Wire Moulds are also pressed into service. It may be seen from the amount of labor and material expended that a real problem exists, and that a real effort is being made to solve it.

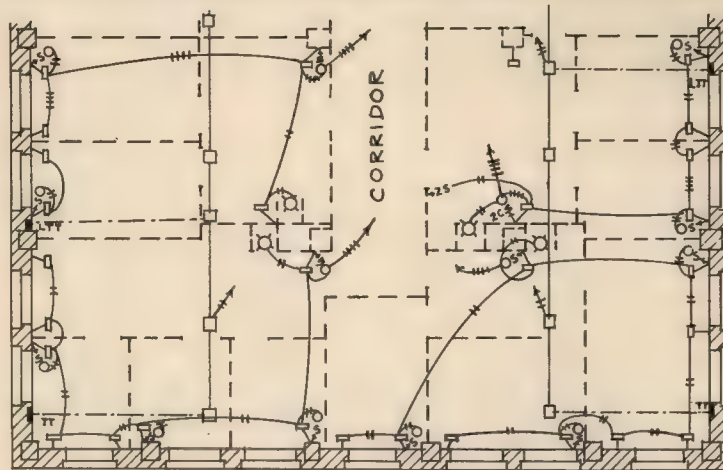
Figures 2 and 2-A show the Knapp Wyr-Way Base Branch Circuit Distribution System which combines the good points in the system shown in Figures 1 and 1-A with improvements and additional conveniences and gives the required flexibility for both the high and low tension outlets. This is accomplished as follows:—

A special Knapp Wyr-Way Base Universal Junction Box is placed at the floor line in the fire-proofing around the permanent columns and Wyr-Way Base is run around the columns. For each bay two universal junction boxes are placed, one at a column and one at the outside wall, and these two boxes are connected by means of conduit in the floor fill or by any other approved method in use. Wyr-Way Base is then run around the perimeter of the space under consideration. Now, if at any future time a partition is put up, it must, at some place, butt up to one of these columns or the perimeter of the room, and Wyr-Way Base may then be installed on the partitions.

Knapp Wyr-Way Base has two raceways, one for high tension and one for low tension wires, and is fitted with an easily removable screwless cover, so that *any point within reach of a column or the perimeter of a room or any partition may have outlets for high tension and low tension service.*

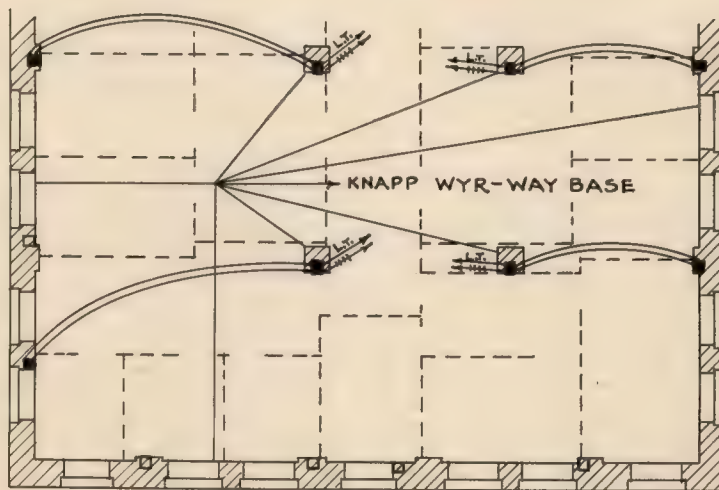
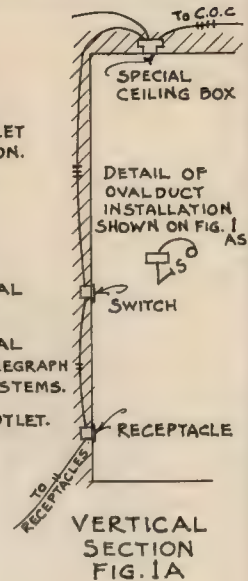
Figure 2-A shows how 110 volt circuits may be run from Knapp Junction Boxes to the switch and to an ovalduct junction box. The ceiling light locations may then be postponed until just before the partitioning or plastering. The telephone or other low tension wires may be brought into the Wyr-Way Base System by means of a home run to the universal junction box and then distributed around the room in the upper raceway to the desired location.

Figure 3 shows how Knapp Wyr-Way Distribution System may be used in conjunction with the distribution system shown in Figure 1. This will permit those Architects who are ultra-conservative to use Knapp Wyr-Way Base Distribution System in connection with their present layouts, i. e., the home runs will be the same as previously and provisions are made for the Knapp system to connect to the high tension systems from the wall switches to the lower raceways and connect to the low tension system through the corridor wire mouldings or the duct system to the upper raceway. The wires may then be distributed around the perimeter of the room or office space and around the columns, thus creating a flexible system for both high tension and low tension outlet.



PLAN SHOWING AN ELECTRICAL SYSTEM NOW IN USE
FIG. 1

- SYMBOLS
- BASE RECEPTACLE.
 - 50 WALL SWITCH AND SPECIAL CEILING OUTLET FOR OVALDUCT EXTENSION.
 - HOME RUN WITH FOUR WIRES ETC.
 - UNDERFLOOR DUCT JUNCTION BOX.
 - TY TELEPHONE TERMINAL WALL CABINET.
 - LTT LOW TENSION TERMINAL WALL CABINET FOR TELEGRAPH AND LOW TENSION SYSTEMS.
 - ⊗ ELECTRIC CEILING OUTLET.
 - ELECTRIC CONDUIT WITH 2 WIRES ETC.



PLAN SHOWING KNAPP WYR-WAY BASE
BRANCH CIRCUIT DISTRIBUTION SYSTEM
FIG. 2

- SYMBOLS
- UNIVERSAL JUNCTION BOX WITH SWITCH OUTLET AND OVALDUCT JUNCTION BOX ABOVE.
 - OUTLET JUNCTION BOX WITH SWITCH AND OTHER OUTLETS ABOVE.
 - HOME RUN WITH 4 WIRES ETC FOR HIGH VOLTAGE.
 - L.T. HOME RUN FOR TELEPHONE OR LOW TENSION
 - PROBABLE PARTITIONS

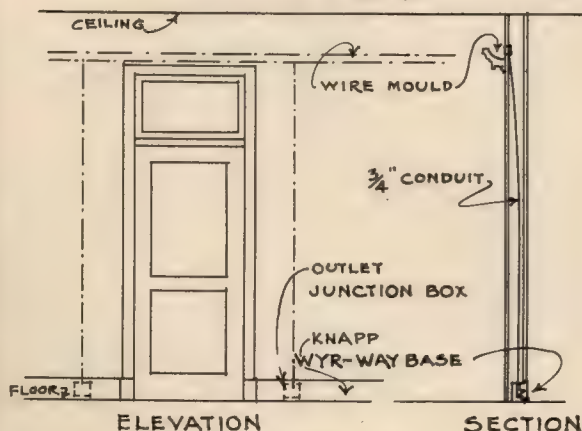
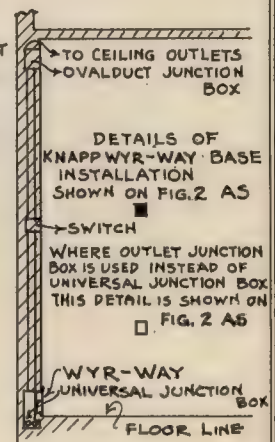


FIG. 3

THIS SHEET SHOWS THREE METHODS OF "BRANCH CIRCUIT DISTRIBUTION" FOR THE SAME SPACE. FIGURES 2 AND 3 SHOW TWO METHODS BY WHICH THE HIGH TENSION AND LOW TENSION WIRING MAY BE BROUGHT INTO THE KNAPP WYR-WAY BASE BRANCH CIRCUIT DISTRIBUTION SYSTEM.

WYR-WAY SECTIONS AND FLUSH PLATE

The raceways and cover plates shown in Details Nos. 1, 2, and 3 are furnished in 18 gauge U. S. Standard dull finish tight galvanized sheet steel, in 10 foot lengths. The exposed surfaces are further treated with a coat of *Knapp Special Primer* to serve as a foundation base for subsequent paint, Duco, Enamel or Special Finish.

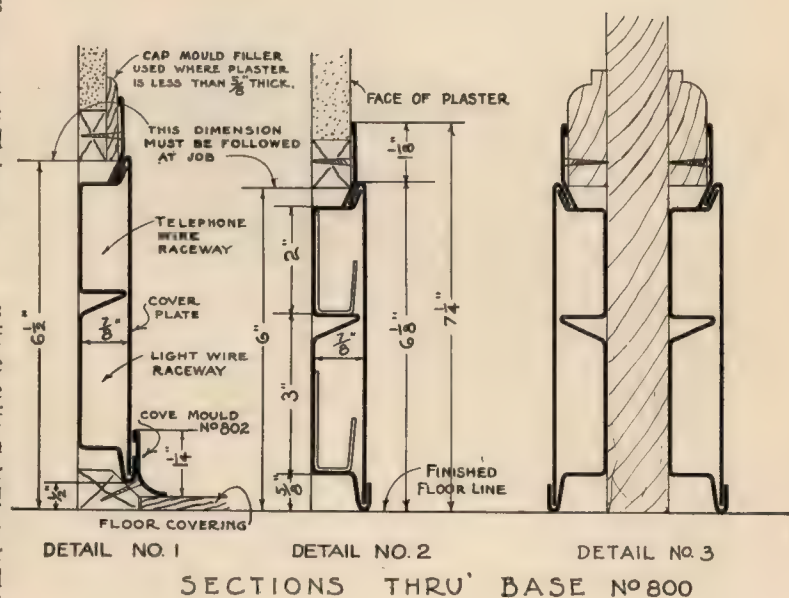
The cove shown in Detail No. 1 is supplied when specified. It is made of the same material and finish as the cover plate. It will be noted that the cove rests on the bottom curve of the base and does not interfere with the removable feature of the cover plate. This cove can also be furnished in brass or bronze at a slight additional cost. In locations where plaster is less than $\frac{5}{8}$ inch, a cap mould filler may be used as shown in Detail No. 1. By means of this filler, Wyr-Way Base may be used on any type of partition of any thickness.

Detail No. 2 shows a cross section with the wire holders, which are supplied in all cases.

Detail No. 3 shows the construction when Wyr-Way Base is used on dwarf partitions or office fence partitions. The cap mould filler may be of wood or metal and in various designs.

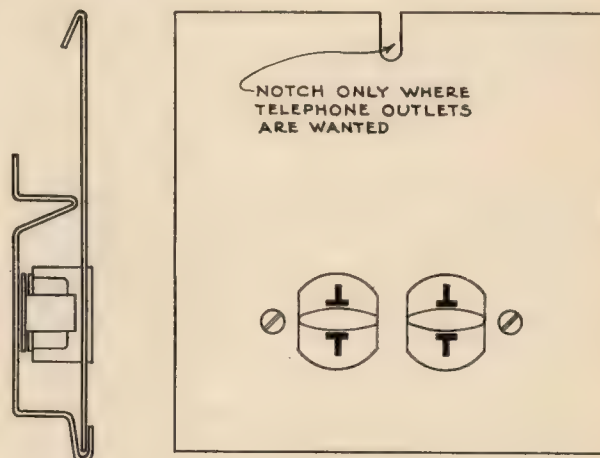
The details to the left show a flush plate and demonstrate how convenience outlets and low tension outlets are provided for. If the outlet requirements are changed, a new outlet in a new location may be installed by removing a length of easily removable cover, cutting out 6 inches and replacing it with a 6 inch punched flush plate shown to the right. A new outlet is thus provided at this point.

Where a telephone outlet only or some other low tension outlet is required, a notch may be put into the face plate and the wires from the raceway drawn through. This will permit the



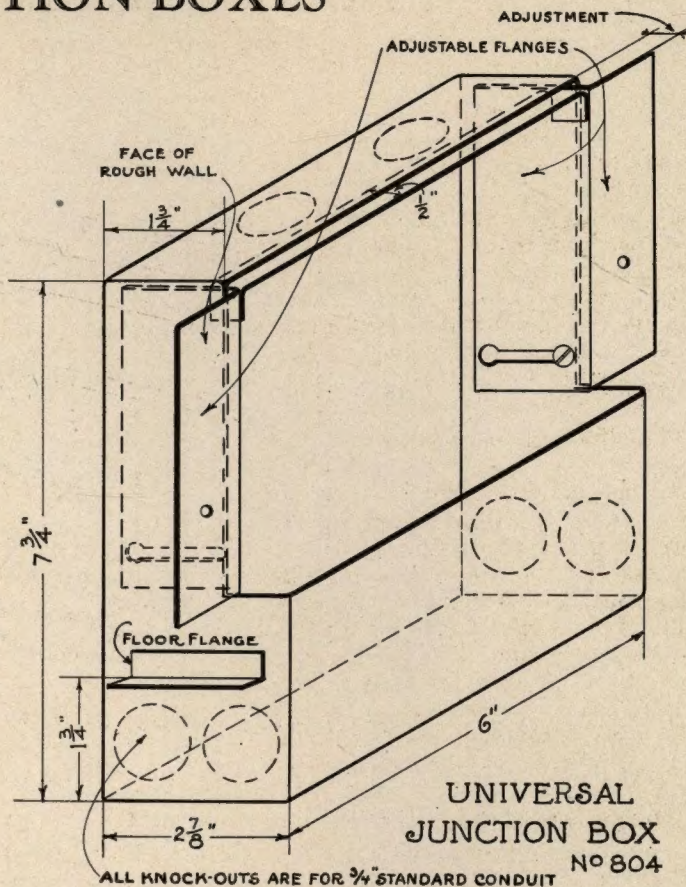
removal of the face plate when necessary, without detaching the wires. An insulating bushing may be used in the notch.

Only shallow flush receptacles such as Spar-ton No. 792 Shallow Flush Duplex Receptacle made by the Bryant Electric Company of Bridgeport, Conn., should be used.



JUNCTION BOXES

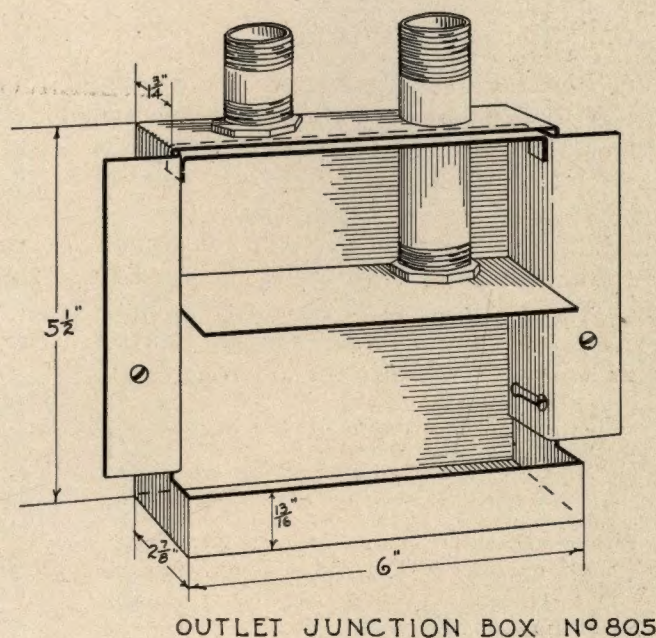
The Universal Junction Box shown to the right is the connecting link between the "Knapp Wyr-Way Base Branch Circuit Distribution System" and the general distribution system. It is fitted with an adjustable wall flange and a floor flange which provides two definite surfaces by means of which the box may be placed. The wall flanges in connection with the adjustable junction plate mentioned later provides an adjustable feature. This box permits the connection of home run conduit under the floor and permits connecting this box with other Universal Junction Boxes, and outlets in the walls and ceiling. The box is made of 16 gauge U. S. Standard, black sheet steel, protected by standard primer. Partitions are provided so that the high and low tension wires are always kept separate in accordance with "Underwriters' Laboratories" requirements.



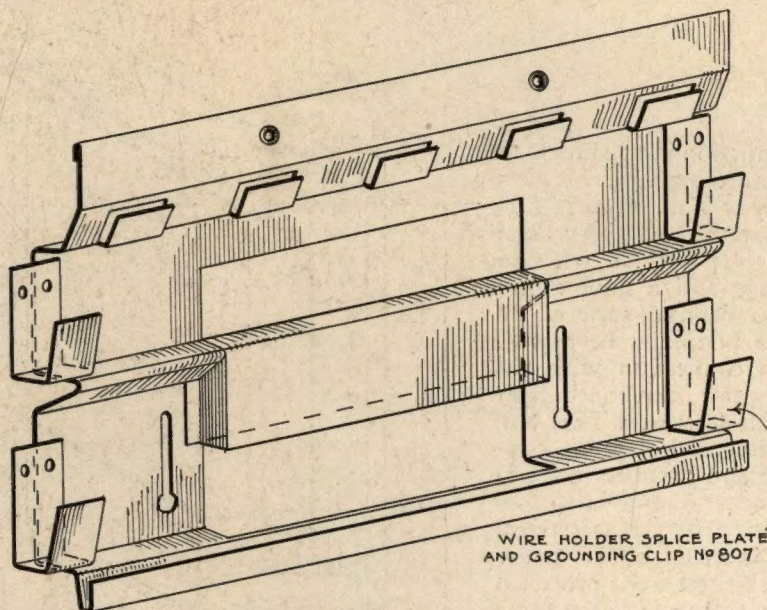
The outlet junction box shown to the right makes it possible to connect circuits in the Wyr-Way Base System to wall or ceiling outlets or permits connections of wall or ceiling outlets with the Wyr-Way Base System and facilitates the connection of the low tension wiring carried in the corridor wire mould, to the Wyr-Way Base System. Where low tension laterals are used, the upper raceway may be connected directly with the low tension lateral at the place where the base intersects with the lateral.

The boxes are provided with knock-outs instead of the short nipples shown in the illustration.

This box is also provided with flanges so that the adjustable junction plate can be used. It may be set on the floor and placed in partitions after the floor is finished. Figure 2 on page 3 shows the use of both the Universal Junction Box and the outlet junction box. Figure 3 shows the use of the outlet junction box.



INSTALLATION INFORMATION



ADJUSTABLE JUNCTION PLATE NO 806

It is a conceded fact that hairline adjustment on the job is not possible and should not be expected from the average mechanic. Two flanges on the junction box are provided by which the box may be located, i. e., a floor flange which should be placed at the finished floor line and a wall flange which should be placed at the unfinished wall line.

The mechanic responsible for the placing, due to the irregularity of the construction and other unaccounted for reasons, sometimes places the box from $\frac{1}{2}$ inch to 1 inch away from its specified location. When the base is run it is found that the junction box will not member with the base. This difficulty is eliminated by the above junction plate. The required adjustment is accomplished by the combined junction plate and junction box in the following way:

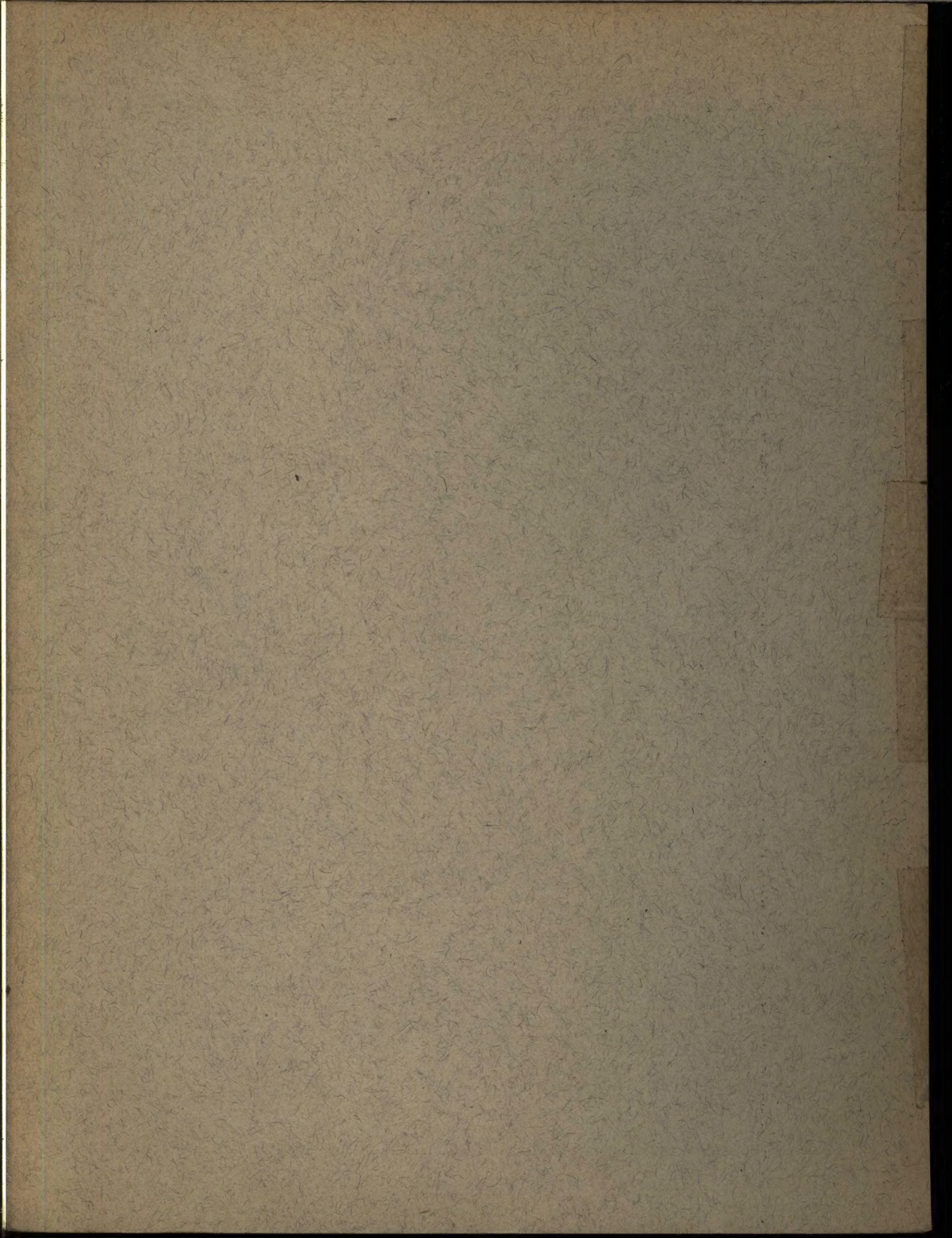
The plate may be raised or lowered by means of the slots in the plate riding on the round headed machine screws, placed in the flange. An in-and-out adjustment is accomplished by means of the adjustable flange with the horizontal slot riding on a round headed machine screw placed in the side of the box.

The combination of these two adjustments will permit the tilting motion thus giving as close to a universal joint adjustment as possible.

Junction boxes are shipped to the job without any partitions in them and the wall flanges set about $\frac{1}{2}$ inch from their extreme inward position. At the time the base is shipped, the junction box partitions and junction face plates are shipped. The base may then be erected, the partitions inserted, the machine screws in the flanges loosened, the junction face plate attached, the final adjustment made, and the wire holders (which now also act as grounding clips and splice plates) fastened. To assure positive grounding, the machine screws should now be tightened.

The adjustable junction feature in the Wyr-Way Base System reduces the time required for installation considerably and permits the continuous installation of base without the necessity of fitting the base to the junction boxes.

The wires from the home runs are taken to the junction box by means of $\frac{3}{4}$ inch conduit and brought through suitable metal partitions to the openings in the junction plate and may then be distributed in the raceways to the locations where the electrical service is required. Other details like wire holders, which also act as a grounding clip and junction plate, are provided to facilitate installation.



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